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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1975

HEARINGS BEFORE A SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES NINETY-THIRD CONGRESS SECOND SESSION

SUBCOMMITTEE ON DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES

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DEPARTMENT OF THE INTERIOR AND RELATED AGEN- CIES APPROPRIATIONS FOR FISCAL YEAR 1975

WEDNESDAY, MARCH 27, 1974.

SMITHSONIAN INSTITUTION

WITNESSES

S. DILLON RIPLEY, SECRETARY
 ROBERT A. BROOKS, UNDER SECRETARY
 CHARLES BLITZER, ASSISTANT SECRETARY FOR HISTORY AND
 ART
 DAVID CHALLINOR, ASSISTANT SECRETARY FOR SCIENCE
 JULIAN T. EUELL, ASSISTANT SECRETARY FOR PUBLIC SERVICE
 PAUL N. PERROT, ASSISTANT SECRETARY FOR MUSEUM PROGRAMS
 T. AMES WHEELER, TREASURER
 RICHARD L. AULT, DIRECTOR OF SUPPORT ACTIVITIES
 JOHN F. JAMESON, ASSISTANT TREASURER (PROGRAMING AND
 BUDGET)
 MICHAEL COLLINS, DIRECTOR, NATIONAL AIR AND SPACE
 MUSEUM
 THEODORE H. REED, DIRECTOR, NATIONAL ZOOLOGICAL PARK
 ROBERT BURKE, DIRECTOR, PROTECTION SERVICES
 SUSAN A. HAMILTON, BICENTENNIAL COORDINATOR
 HURLEY F. OFFENBACHER, PROJECT MANAGER FOR THE NA-
 TIONAL AIR AND SPACE MUSEUM

Mrs. HANSEN. The committee will come to order.

This morning we have the Smithsonian Institution and the principal witness is S. Dillon Ripley, Secretary.

Dr. Ripley, you have a statement, which you may place in the record and summarize.

Mr. RIPLEY. Thank you very much indeed, Madam Chairman. I do have a statement.

[The statement follows:]

(1)

STATEMENT OF S. DILLON RIPLEY, SECRETARY
SMITHSONIAN INSTITUTION
ON APPROPRIATIONS REQUESTED FOR FISCAL YEAR 1975

Madam Chairman and Members of the Committee:

It is a pleasure to be here today to review the Smithsonian Institution's program plans for the budget year 1975 and to share with your Committee our accomplishments and current activities. Let me also say that it has been an honor to appear before you, Mrs. Hansen, and we will miss this opportunity in the future. We have greatly appreciated the real interest you have shown in our varied activities from history to the Zoo.

Notable Events of the Past Year

Public Attendance and Service

Visitor attendance in FY 1973 to our Museums on and near the Mall was approximately 15,150,000, an increase of about 120,000 over the previous year. An additional 5,950,000 persons visited the Zoo and some 50,000 persons came to the Anacostia Neighborhood Museum. About 4,000,000 viewed traveling exhibitions, and many hundreds of student and professional visitors came to our astrophysical and biological research centers. The seventh annual Festival of American Folklife, which for the first time was cosponsored with the National Park Service and located around the Reflecting Pool, drew an additional 1,000,000 visitors. Finally, this year our Associate membership reached half a million. Thus we can say that in this past year the Smithsonian brushed against the consciousness of some twenty-six and a half million people, somewhat better than 10 percent of the U. S. population. Since January, we have experienced some decline in our visitation, probably attributable to the gasoline shortage and to the inroads that inflation has made on potential visitors' travel budgets. We will watch future developments very carefully.

I would like to mention at this point the services provided us by dedicated and capable volunteers who value their association with the public service work we do. Each year volunteer services contribute significantly to the Institution's programs, particularly in the area of visitor orientation and education. In FY 1973, 1,120 persons contributed 105,000 hours of work. This represents 77 man-years and can be valued at approximately \$900,000.

Communications and Public Orientation

More than 1,100 separate titles of research publications, exhibit catalogues, education pamphlets, information leaflets, and other reports were issued in the past year. A new guidebook to the Smithsonian has been published in English, with foreign language editions in French, Spanish, German, and Japanese. Through February 1974, 100,000 copies of this guidebook have been sold. We have also prepared foreign language editions of our free building guide leaflets. Other communications activities include radio, television, and motion picture programs. We anticipate that our magazine, Smithsonian, will have more than 600,000 subscribers by this coming June.

To avail ourselves more fully of the wide audience provided by national television, an agreement has been made with a commercial producer for a

series of prime-time commercial network television specials. Under terms of the agreement, very carefully studied by a committee of the Board of Regents, our producer will make three to five hour-long specials to begin with the 1974-75 television season. Each special will draw on subjects related to the Smithsonian collections and knowledge in the fields of art, science, and history, and will, we hope, serve to "increase and diffuse knowledge among men."

A communications effort of a somewhat different nature is "the Smithsonian Collection of Classic Jazz." Based on current sales, it is estimated that more than 20,000 sets of these recordings will be sold between November 1973 and June 1974. They have been most enthusiastically received by the public and by critics.

Research and Exhibition

The Center for Astrophysics was established in Cambridge, Massachusetts in July 1973 to coordinate more effectively the research activities of the Smithsonian Astrophysical Observatory and the Harvard College Observatory. In the past, the two observatories have collaborated in many programs of common interest. Now they are entering full partnership and utilizing the resources of both in a unified scientific program. Although the two organizations will continue to be responsible to their parent institutions, one director will oversee the scientific activities of both observatories.

Development of the Mount Hopkins, Arizona Observatory is proceeding, with the major thrust being centered on site development for the multiple mirror telescope now being fabricated. Current research facilities include a 60-inch telescope, a 12-inch telescope, a 34-foot gamma-ray reflector, and a satellite tracking station, with optical and laser capabilities.

The Chesapeake Bay Center for Environmental Studies has become the focal point of a model watershed program for the Rhode River, a sub-estuary of the Chesapeake Bay. Research is being conducted as a part of the program of the Chesapeake Research Consortium, an association of the Smithsonian Institution, the Johns Hopkins University, the University of Maryland, and the Virginia Institute of Marine Sciences, and is funded by the National Science Foundation. A \$125,000 grant has been provided by the Edward John Noble Foundation for a public environmental information research program. This represents the most substantial private funding of a scientific program that the Center has received.

The 50th Anniversary celebration of the Freer Gallery of Art began on May 2, 1973. To commemorate this Jubilee Year, three major widely-acclaimed exhibitions--Ukiyo-e Paintings, Chinese Figure Painting, and Ceramics from the World of Islam--were presented, each accompanied by a scholarly symposium and a major catalogue.

The "Black Presence in the Era of the American Revolution, 1770-1800," a comprehensive exhibition presented by the National Portrait Gallery on the participation of black men and women in the Revolutionary period, drew an attendance of more than 160,000. This was a larger attendance than that for any exhibition held previously at the Gallery. A major scholarly catalogue of the exhibition was published.

The Lincoln Gallery of the National Collection of Fine Arts in the Fine Arts and Portrait Gallery Building, a victim of subway construction, has been restored and totally reinstalled to present a wide range of aspects of American art from the eighteenth century to the present. I hope you have read the enthusiastic press reviews of the exhibit and education programs of the National Collection.

New Facilities

A 3,600-acre site at Front Royal, Virginia, is being acquired for the establishment of an animal conservation center. This center will be used for breeding endangered wildlife species and for associated research efforts. We have been granted a temporary use permit by the General Services Administration and transfer of the property is pending. This facility will operate in cooperation with other zoos throughout the nation thereby extending its capabilities and benefits.

Construction has begun of an exhibits design and production laboratory for the Anacostia Neighborhood Museum. Completion is scheduled for June 1974. The Laboratory will serve, among other purposes, as a facility for training minority people as museum technicians. The first two years of the training program, with prospect for extension, will be financed primarily through a foundation grant in the amount of \$289,000.

Staff and some collections have begun to occupy the Hirshhorn Museum and Sculpture Garden and a public opening is planned for October 1974. Mr. Hirshhorn completes his gift of a million dollars toward construction costs this month.

Construction of the National Air and Space Museum is proceeding on schedule, thanks in large measure to the very skillful and diligent attention of the General Services Administration.

Preparations for opening Hillwood, the magnificent 25-acre estate bequeathed to the Smithsonian by Marjorie Merriweather Post with an endowment for its operation, are progressing; and a public opening is expected within a year. The collections include creations by Fabergé, jeweler to the Czars; Sèvres porcelains; Beauvais tapestries; portraits of French nobility; Imperial Russian portraits; and 18th century French furnishings.

Effective Use of Current and Future Resources

It may be appropriate at this time to mention a few things we have done this past year to ensure the most judicious and efficient use of our resources.

We have initiated periodic formal sessions, involving Institution-wide participation, to discuss and define important Institution objectives. And to encourage good communications and thoughtful review of important Institutional policies, procedures, and plans, we have established a Council of Directors to represent the major museums, galleries, and research laboratories. This group has been of immense help to me.

Throughout the year, we continue to review the use of resources in our base. Several significant changes in our internal organization have been

accomplished. The primary impetus behind these reorganizations has been the need to strengthen the ability of our major museums and galleries to administer directly key aspects of their programs. As a result, resources in the areas of exhibits, elementary and secondary education, and buildings and facilities management have been placed under the direct responsibility of pertinent museum and office directors.

Budget Requests for FY 1975

I would like now to summarize and highlight our budget requests for FY 1975. In total, we are requesting appropriations of \$97,384,000, presented in several appropriation accounts, as compared with \$86,651,000 estimated for FY 1974. These accounts are structured somewhat differently from last year. At the specific request of the Office of Management and Budget, six appropriation accounts have been consolidated into three accounts. The Science Information Exchange has been incorporated into the "Salaries and Expenses" account. The three separate construction accounts--Restoration and Renovation of Buildings; Construction and Improvements, National Zoological Park; and Construction--have been combined to form a single new account entitled "Construction, Restoration, Repair, and Improvements."

(In thousands of dollars)

	FY 1974 <u>Estimate</u>	Requested FY 1975 <u>Increase</u>	FY 1975 <u>Estimate</u>
Salaries and Expenses	\$60,291	\$11,268	\$71,559
Special Foreign Currency Program	4,500	-0-	4,500
Construction, Restoration, Repair, and Improvements	<u>21,860</u>	<u>-535</u>	<u>21,325</u>
Total	\$86,651	\$10,733	\$97,384

Looking at each account, I would like to explain why these funds are relevant to national needs and important for FY 1975.

Salaries and Expenses

We are seeking an operating budget of \$71,559,000 for 52 separate entities--including museums, art galleries, a zoological park, research laboratories, special programs, and supporting activities--as detailed in our budget submission. This is an increase of \$11,268,000 or about nineteen percent above our estimated FY 1974 base (which includes the requested pay raise supplemental of \$3,203,000) of \$60,291,000. This can be considered a very significant increase; but its purposes, and the programs for which it is requested, are of primary importance in the present obligations and public commitments of the Institution.

In initial planning for our FY 1975 budget request, we gave special priority to the correction of a problem which demands continued attention. For many years we have concentrated on developing and presenting relevant

and innovative research and exhibition programs. The capabilities of many of the "behind the scenes" administrative and technical support activities--for example, registration, conservation, libraries, and automatic data processing--did not keep pace with growing program performance demands. These support activities provide the essential foundation of the more visible research and exhibition programs and the safety and well-being of the collections and of the public. A limited start was made to strengthen our support activities in the FY 1973 and 1974 budgets. To continue this phased development program in FY 1975, our budget request reflects a self-denial of all but essential program growth to meet public commitments in order to make a concerted effort to correct the imbalance of resources available for support services. The budget also addresses itself to certain uncontrollable expenses. I will speak to each of these three areas of emphasis briefly.

Meeting Public Commitments

For next year we have requested program increases only where necessary to meet major public commitments. These commitments include preparing for the opening of the National Air and Space Museum and implementing an impressive local and national program for the commemoration of the American Revolution Bicentennial. Increases of 84 new positions and \$4,168,000 are requested to provide adequate resources for the continued development of these two major responsibilities.

Only a little more than two years remain for completing the research, collections documentation and restoration, and exhibits planning, design, and production necessary to open the new National Air and Space Museum on July 4, 1976. The new museum building, whose construction is on schedule and within budget, will have twenty-five major exhibition halls available to the public on opening day, about 50 percent of which should be equipped with long-term, fully-functioning exhibits. The balance of the halls will have temporary displays. An amount of 23 positions and \$1,441,000 is required to raise our current level of performance to realize this goal. This includes space rental funds required for temporary storage of completed exhibit components prepared prior to the building's completion. As we expect the building to be ready for the first phase of occupancy in March 1975, protection, maintenance, and custodial functions will require 61 positions and \$295,000 for the partial year of occupancy. Total program increases related to the National Air and Space Museum are 84 new positions and \$1,736,000.

By FY 1975, we will have completed more than four years of funded Bicentennial planning and development. The result, we believe, is an impressive program including traveling exhibitions, major scholarly publications, and numerous major new exhibitions in our museums here in Washington. As we move from what has been primarily a period of planning and design into a period of production and presentation, expenses become greater. An increase of \$2,506,000 for a total program effort of \$4,236,000 is requested. None of this funding is recurring after FY 1977.

A third commitment is the opening in FY 1975 of the Hirshhorn Museum and Sculpture Garden. No additional funds are requested. Indeed, a net reduction of \$46,000 in the base is projected. We have also applied a reduction of \$28,000 in the Major Exhibition Program towards meeting public commitments.

Correction of Support Deficiencies

We are seeking an additional 253 new positions and \$4,334,000 to meet the support requirements which I mentioned before. As you read our budget justifications, you will see repeated references to these needs. I hope you will sense that this repetition is indeed the echo of problems that are shared by a great many of our bureaus and offices that are trying hard to sustain high levels of productive research and public service. I hope we will have the opportunity to discuss with you these problems at the organizational unit level, but let me try to summarize them in four basic areas: care and accessibility of the collections; documentary and educational services to the public and professional staff; buildings and facilities management and protection; and general management services.

1) Care and Accessibility of the Collections and Research Data

An additional 43 positions and \$655,000 are required to support our efforts in registration of collections, conservation, and automatic data processing. A standard, efficient registration system must be instituted throughout the Smithsonian. It is imperative not only for the safeguarding of documents of receipt and ownership but also for greater accessibility of information. The importance of a sufficient capability to prevent deterioration and loss of the collections cannot be overstated. The pollution of today's urban and industrial society has greatly accelerated the process of decay. Effective conservation depends on specialized treatment, a thorough understanding of the material's properties and styles, and constant attention to proper handling and maintenance of the collections. We are just beginning to take advantage of the benefits of automatic data processing in the collections management and research areas. Continued development of ADP facilities will enhance greatly staff and public study and use of the collections, in addition to improving our day-to-day management capabilities.

2) Documentary and Educational Services to the Public and Professional Staff

Fifty-five new positions and \$1,107,000 are needed to increase our capabilities in library, photographic, printing, archival, public orientation, and education services, and in our support of the museum community through the National Museum Act.

Adequate, well organized, and easily accessible reference materials are essential elements to productive research and exhibit efforts. Many of our library materials are rare and old. Special attention and expense is required for their binding and preservation. Photographic requirements exist throughout the Institution, but there is a particular need to improve our capability for the microfilming of collections and other irreplaceable records. In addition, requests for prints and slides by the public and by our scientists and curators have far surpassed our current production capabilities. Publication activity is a fundamental extension of basic research and public education programs. Additional support is required to provide more complete and timely editorial assistance and to fund the increase in printing costs resulting from inflation and a larger volume of materials to be printed.

Current holdings in the Smithsonian Institution Archives number approximately two million items. Many of these materials are essential for

documenting Smithsonian history and objects in the collections. Our efforts, for which additional funding is sought, are directed towards identifying and preserving these documents and increasing their availability.

As you know, a primary objective of the Smithsonian is to make our resources for learning available to the general public, especially at the elementary and secondary school level. We have a great potential, as well as an obligation, for adding to the education of the public. Additional resources are being sought to enable us to expand our outreach efforts and to provide requested educational materials, tours, and innovative programs.

3) Buildings and Facilities Management and Protection

A further 138 positions and \$1,866,000 are required to provide adequate maintenance and protection for a large number of buildings and facilities that are heavily used by the public. As noted earlier, in our attempt to use existing resources most effectively, a separate Office of Protection Services was established, and custodial and labor forces have been administratively assigned to appropriate museum and office directors. Internal management actions, however, are not sufficient in themselves to solve the shortages in manpower and materials. Our responsibilities to the public, in terms of their safety and enjoyment, demand that we make every effort to provide well-planned and designed, adequately maintained, and carefully protected facilities.

4) General Management Services

And in our last general area of support, an additional 32 positions and \$706,000 are required to provide assistance in executive management, purchasing, auditing, property control, personnel, accounting, legal matters, and supportive clerical work.

Uncontrollable Increases

In the final category under "Salaries and Expenses," we are requesting an increase of \$2,766,000 for largely uncontrollable costs resulting primarily from legislation. These include:

--the projected higher cost of current employees caused by legislated pay raises, periodic step increases, extra work day, and higher social security costs (\$1,856,000).

--the additional cost of space currently provided by the General Services Administration (pursuant to the Public Buildings Amendments of 1972) and the cost of related space requirements (\$830,000).

--postage indicia rate increases and related insurance costs on borrowed objects (\$80,000).

Special Foreign Currency Program

An appropriation of \$4,500,000 is requested for the Special Foreign Currency Program. This appropriation, which includes no proposed increase in funding above FY 1974, will be used for two general purposes:

1) to continue a program of grants totalling \$3,500,000 to United States institutions for overseas archeological work, systematic and environmental biological research, astrophysical and earth sciences studies, and museum programs.

2) to make the second of four annual payments, each of \$1,000,000 equivalent in "excess" Egyptian pounds, representing the United States' contribution to UNESCO's international campaign to the work now well underway to preserve archeological monuments in Nubia. These monuments, which today are inundated by the waters of the Nile River, will be removed and re-erected on a nearby island in a setting nearly identical to their original one.

Construction, Restoration, Repair, and Improvements

We are requesting \$21,325,000 for the planning, construction, restoration, and renovation of buildings and facilities, a decrease of \$535,000 from the 1974 level of appropriations. This request falls into three major areas:

Planning, construction, and repairs at the National Zoological Park	\$10,000,000
Restoration and renovation of other buildings and facilities	\$1,325,000
Construction of the National Air and Space Museum (liquidation of contract authority)	\$10,000,000

The request of \$10,000,000 for planning, construction, and repairs at the National Zoological Park represents a major step in the development of the Zoo's Master Plan. The Plan consists of 41 closely interrelated projects. Since this plan will be implemented while the Zoo is in operation, these projects must be accomplished within a definite time-frame for the well-being of the animals and for the convenience, pleasure, education, and least cost to the public. The \$10,000,000 request is allocated as follows.

Funding of \$2,970,000 is required to complete construction of the new outside animal paddocks at the elephant house and the plaza surrounding the bird house. Planning is well along and construction can begin early in FY 1975. Both projects will be finished in time for the Bicentennial celebration.

An amount of \$2,730,000 will be used to complete working drawings on the general service and parking facility and to undertake necessary access work. This particular project is pivotal to the entire Zoo construction program. It organizes visitor parking, freeing approximately 12 acres for park land for public use and animal exhibition. It centralizes service functions of the Zoo. And it will provide critically necessary flood control protection. A portion of the fee currently charged for visitor parking will be applied to construction of the section of the building related to visitor parking.

An amount of \$3,000,000 will be used in association with anticipated funds from a private foundation for the completion of plans and construction of an education and administration building. This will give us in 1976 for the first time an orientation area for the great numbers of visitors to the Zoo--a service that is vitally needed.

Planning for future phases of the Master Plan will continue in FY 1975 and will cost an additional \$650,000. The planning funds will be applied to completion of planning documents for the lower Rock Creek area, initial planning for the polar bears and the center of the Zoo, and initial planning of exhibits for the sea lions and seals. Also included is the first phase of planning for the giraffe complex, redevelopment of the current lower parking lot area for animal use, rehabilitation of the duck ponds, and the lesser cat exhibit.

As a final item in the area of Zoo construction, an amount of \$650,000 is required to continue the program of renovation, repairs, and preventive maintenance of the existing, heavily-used facilities. These funds are necessary to the safety and comfort of the visiting public as well as to the safety and well-being of the animals.

An appropriation of \$1,325,000 is sought for the restoration, repair, and improvement of other Smithsonian buildings and facilities. Of this amount, \$200,000 will be used to continue the program of power and road improvements at the Mt. Hopkins, Arizona, Observatory and to initiate work on an adequate water system; \$125,000 are required to make necessary repairs and improvements at the Zoo's recently acquired facility at Front Royal in preparation for its use as a conservation center; and \$300,000 are requested to fund additional improvements in the restoration of the Arts and Industries Building.

This appropriation also includes funding of \$300,000 for the first phase of a long-range project for redevelopment of the South Yard area. This first phase is concerned primarily with upgrading the appearance and use of this valuable area and creating an inviting, restful oasis for Bicentennial visitors.

And finally, an amount of \$400,000 is sought for general building and facility repairs and improvements. These funds will support projects concerned with public safety, care and protection of the collections, development of improved laboratory and research facilities, and general maintenance of a valuable physical plant.

The last item under the general construction heading is for \$10,000,000 to liquidate the remaining balance of contract authority provided for construction of the National Air and Space Museum. As I mentioned, we are making excellent progress on the construction of this building. We have every reason to believe it will be ready on schedule and within the \$40,000,000 appropriated.

This completes my summary presentation of the Institution's budget request for next year. We appreciate the encouragement and support you have given us in the past. We are proud of our accomplishments and excited about our plans for the future. With your support, we will continue and improve our efforts to provide the American people an avenue of greater knowledge and appreciation of their cultural and technological achievements and heritage.

INTRODUCTION OF WITNESSES

Mrs. HANSEN. I guess you would like to introduce your colleagues.

Mr. RIPLEY. Yes, if I may.

I was proposing to introduce Mr. Brooks, the Under Secretary; Mr. Jameson, our Budget Office; Dr. Challinor, and Mr. Blitzler. All of these gentlemen you have met before. And in the second row here I have a large party of people today, Mrs. Gaynor, our congressional liaison; Dr. Reed, who is Director of the National Zoological Park; and Mrs. Hamilton, who represents our Bicentennial concerns; and Mr. Offenbacher, lent us by GSA to supervise the building of the new Air and Space Museum; Mr. Collins, whom you know.

Mrs. HANSEN. Nice to see you, Mr. Collins.

Mr. COLLINS. Madam Chairman, nice to see you.

Mr. RIPLEY. Mr. Ault, who is head of our Support Services; Mr. Burke, who is head of Protection Services; Mr. Perrot, whom you know, Assistant Secretary for Museum Programs; Mr. Euell, who is Assistant Secretary for Public Affairs; and Mr. Wheeler, our Treasurer.

So, we brought all the available brass that we could this morning.

I would like to begin by saying what a rather nostalgic moment this is for us to have this our last presentation, as we understand it, before yourself because it has been an honor to appear before you.

Mrs. HANSEN. Unless you have a supplemental.

Mr. RIPLEY. We may, although I don't think so. We did appear, as you know, a couple of weeks ago in that regard and are deeply concerned about the current headlines in the press that seem to mean some more money for everybody.

Mrs. HANSEN. I noticed that this morning.

PUBLIC ATTENDANCE AND SERVICE

Mr. RIPLEY. Some more money for us to cough up if we can. So, we appropriately hope that our plea on the supplemental will be heard.

This year I totted up the number of people whom the Smithsonian in some way we think has brushed against their consciousness. It comes to 26.5 million, and this represents more than 10 percent of our population. We are very interested in, as you know, various ways of having people become conscious through our publications and exhibits and visits here of the kinds of things that we do and the kinds of things we think we can do for them.

We also this year totted up the number of persons who contributed volunteer work and it comes to 1.120, contributing 105,000 man-hours, which represents close to \$900,000 worth of free effort for us which otherwise we would have had to try to find people to pay for.

COMMUNICATIONS AND PUBLIC OUTREACH

We have a lot of publications, this past year some 1,100, and here is a copy of our new guidebook. This was published at no cost to us for our museum shops to sell. I have a copy for every member of the committee of the guidebook which, incidentally, has sold like hotcakes.

Through February 100,000 copies have been sold and we have printed editions now in four other languages, as well as these leaflets. We believe that it is a little bit ungracious for us to have these leaflets and catalogs only in English when there are so many people speaking other languages who come to our buildings.

I have Spanish, German, and French here, and we have also done a Japanese version of the larger catalog. We believe that these will be extremely popular, too. I believe that all large public institutions like our own should do this, and it is important for people who do not speak English.

I am always most embarrassed when I go abroad to a French or other museum to see how many publications there are in English, and what are we doing back home for people who don't speak English.

We have also gone into radio and television programs and this year have signed a contract with a major television producer, after a long study by the Regents about the propriety of this, to have some three programs a year, hour-long specials, sponsored by some company on the Smithsonian activities. The Regents feel this is the kind of projection that we should be getting involved in. As you know, the magazine has been very successful.

Mrs. HANSEN. It is a very beautiful magazine.

Mr. RIPLEY. And we are very pleased with the fact. This is the kind of outreach which we feel is important and valid.

Another project that we have had which has been extremely popular is the Smithsonian collection of classic jazz records, the product of saving old tapes, putting them together in recordings and making them a quite carefully documented history of the early movement of jazz in this country. This has been very popular and I think 20,000 sets have been sold already.

Mr. WYATT. What is the retail price on those, Dr. Ripley?

Mr. EUELL. \$20 for six records, plus printed material, which I might add is very underpriced, but it is strictly for educational purposes. We can only sell it in our own shops or to colleges and schools. It is not going to commercial stores at all.

DEVELOPMENTS IN THE AREA OF ASTROPHYSICS AND ASTRONOMY

Mr. RIPLEY. This past year we brought together our astrophysics activities into one center, coordinating with Harvard University. We have been working with Harvard for more than 15 years and we felt full partnership was the best way of utilizing these joint resources and cutting down on any possibility of duplication and at the same time making one director responsible for all of it.

As you know, we are proceeding with our observatory in Arizona and hope that that will be a very important component of the national effort in astrophysics and astronomy.

Mrs. HANSEN. Speaking of your work in astrophysics, is there any participation with the Russians in their Mars flight?

Mr. COLLINS, do you know of any?

Mr. RIPLEY. We are involved in planning for a combined operation.

Mrs. HANSEN. They had a flight which they say landed; I guess it crashed. How much retrievable information came out of that?

Mr. COLLINS. They got quite a bit, Madam Chairman. Unfortunately this particular one ceased sending signals before it landed on the surface, but NASA has an agreement with the Russians whereby they exchange scientific information. We tell them what we know from the Moon rocks. They tell us what they learn from their programs.

Mrs. HANSEN. When they get their information all on their computers, I suppose, they will share that information with you?

Mr. COLLINS. Yes, that is the agreement, Madam Chairman.

Mr. RIPLEY. We do have an instrument in the planning stage for one of those joint operations.

Dr. CHALLINOR. During fiscal 1975 Soyuz will be launched and we will be able to attempt a docking with the Russian vehicle. We have what they call a double doppler tracking experiment to make contact between two spacecraft outside of the earth's atmosphere. The experiment will help detect variations in the earth's gravity field.

Mrs. HANSEN. Is their equipment more sophisticated than ours in returning retrievable information?

Mr. COLLINS. No, not in my opinion. It is less sophisticated.

OTHER NOTABLE EVENTS OF THE PAST YEAR

Mr. RIPLEY. The Chesapeake Bay Center is now an active consortium between the Smithsonian, Johns Hopkins, University of Maryland, and the Virginia Institute of Marine Sciences and is funded by the National Science Foundation to a considerable extent.

We recently received a very promising grant from the Noble Foundation for a public environmental information research program. This represents a very substantial funding from us for private sources of \$125,000.

I should mention that this past year we had the 50th anniversary of the Freer Gallery with three exhibitions and three symposia. We have catalogues of the exhibitions, Japanese, Chinese, and Islamic, and they are present on the table for the committee.

We raised something in the neighborhood of \$150,000 from private subscriptions to support this semicentennial.

The National Portrait Gallery has had a most comprehensive exhibit on the participation of blacks in the Revolutionary period, and it drew the largest attendance that they have had in their history, some 160,000 people.

In the fine arts collection area we have restored and opened to the public again the Lincoln Gallery, the handsome large room at one end of that wonderful building which had been shaken by the excavations for the Metro and which had been closed for over 2 years.

Mr. YATES. "Shaken" is an understatement though. I thought I saw some cracks.

Mr. RIPLEY. There were some big cracks but, thank goodness, it wasn't as bad as it could have been.

Mrs. HANSEN. They are paying for the restoration I take it?

Mr. RIPLEY. I believe so, yes.

Mr. YATES. We are also on the Transportation Subcommittee.

GSA RENTAL FUND

Mrs. HANSEN. You can just go to GSA and get some money out of their rental fund. I am sure they are making money hand over fist. For what purpose I have no knowledge.

Mr. RIPLEY. It is no particular benefit to us because we don't use the kind of buildings that they have for rent, to a large extent, but we have to pay out.

Mrs. HANSEN. You are going to discover that that law is the biggest boondoggle that ever passed the Congress.

Mr. RIPLEY. We will have to pay rent to GSA, of a very considerable amount, about \$1 million, next year.

Mrs. HANSEN. Are you going to rent out the apartments to the owls?

Mr. RIPLEY. I wish we had a few more apartments we could rent out. We don't have those kinds of buildings. We have to pay rent to put into a building fund, that won't really bring it back to us in terms of return.

Mrs. HANSEN. Yesterday we found out that one agency is paying rent for their leased quarters but they still have to provide funds to put in partitions and do alterations.

In leasing from any landlord on Earth, even if they are the worst ones on Earth, the tenant is not obligated to spend money on partitions and so on.

Mr. RIPLEY. No.

Mrs. HANSEN. I have never heard of such a business.

NEED FOR BREEDING FARMS FOR ZOOS

Mr. RIPLEY. We have some new facilities. One is in connection with the zoo, some land at Front Royal, Va., which we wish to use for breeding endangered animals and performing research on them.

I have been writing and thinking a good deal about zoos recently. I feel unless the few major zoos such as our National Zoo do this, zoos are probably going to go out of business. There just isn't any way with the restrictive legislation coming up, which is valid and sensible, that internationally zoos can continue to exhibit animals unless they can develop animal conservation plans of their own for raising captive, endangered animals.

PROBLEMS FACING ZOOS TODAY

Mrs. HANSEN. Maybe Dr. Reed knows the answer but aren't most of the zoos of the United States in deep fiscal trouble and at the same time being criticized for inadequate facilities? You have your animal lovers who are criticizing the type of pens and the type of exhibits that most zoos have.

The next thing is that you have endangered species and how to keep them alive.

Mr. RIPLEY. Yes.

Mrs. HANSEN. And all these things have placed the zoos in a critical period. This winter when I was in the Northwest, the Portland Oregonian was filled with the problems of the Portland Zoo and the competition between an independent agency and the city running it.

This got into a real debate between the zoo users and the critics of the zoo, the animal lovers. Everybody was in it. I suspect this kind of problem is found over the Nation, isn't it, Doctor?

Dr. REED. I would say that you have a very good grasp of the problem. The American Association of Zoological Parks and Aquariums couldn't state it better.

Mrs. HANSEN. I am really kind of concerned about this, because the next thing you are going to have, aside from all this problem, is the food problem. Food is very costly. So you are in deep trouble.

Dr. REED. Very serious trouble. We are greatly concerned over our future existence. This is why, as Dr. Ripley said, part of the answer is cooperative breeding efforts with many animals in places like Front Royal.

Fortunately, we are able to take the leadership in doing this.

Mrs. HANSEN. Are you able to give any advice or counsel to some of these zoos that are in trouble?

Dr. REED. Well, we can't give them any advice as to where they are going to get more money. We sympathize with them. We give other zoos advice on management and care of animals, techniques of feeding, and veterinary medicine. We have an excellent medical unit. We are constantly sought as sources of expertise in all areas of zoo management.

PROPOSED LEGISLATION ON ZOOS

Mr. WYATT. Madam Chairman, what was the comment about the proposed pending Federal legislation on the zoos?

Mr. RIPLEY. We haven't commented on it at this hearing.

Mr. WYATT. Are you familiar with the legislation?

Dr. REED. Yes.

Mr. RIPLEY. This is Senator Hatfield's legislation?

Mr. WYATT. Yes. To what extent would that help to solve the financial problem confronting the zoos of the Nation?

Dr. REED. As I understand it, through Federal grants and matching moneys it would help with the finances. However, there is some question as to whether it is to be paid back, whether it is just a loan or whether it is an outright grant.

The other part that would be very helpful would be the accreditation program which would improve the care and management of the animals. The zoos would have to be accredited. However, the American Association of Zoological Parks and Aquariums is starting an accreditation program of its own. With the Federal Welfare Act we are getting considerable pressure from many different sides.

Mrs. HANSEN. Go ahead. I was sorry to interrupt but it just occurred to me that I might later in the day forget this item.

TRAINING LABORATORY FOR THE ANACOSTIA MUSEUM

Mr. RIPLEY. We are active with our Anacostia Museum and have started a technical training laboratory, with private funding from a foundation, where we will train museum technicians. This is something which has been sort of a dream of mine, to get these possibilities before people who represent minority groups in this country, to train them and show them that their innate abilities and artistic talents and so on

can be brought out by training programs and that there are jobs in museums for people to work at in exhibits, and museum techniques, and so on.

We have great hopes for this Anacostia program.

Mrs. HANSEN. On the subject of your Anacostia Museum, there is a rather large program envisioned for the Anacostia area in the National Park Service. Is this near or adjacent to the museum?

Mr. RIPLEY. We are renting some space from the National Park Service.

Mrs. HANSEN. It isn't space they want. They want to make some trails. I just wondered if it was in the vicinity of your museum.

Mr. RIPLEY. I am sure it is in the vicinity, yes, but I think the museum operation is entirely separate.

Mrs. HANSEN. I know that but it is quite a sizeable sum especially when you consider all the other D.C. money such as their tea gardens and so on.

Mr. RIPLEY. We haven't heard about specific things but we do know that we are on park land and are getting this freely given to us as I understand it.

Mr. EUELL. The space that we are building the exhibit design and production lab on is actually land that hasn't been used. We have a 50-year lease in a sense to use it.

Mrs. HANSEN. That is right. They propose to improve the Anacostia area and I wondered if the museum was near so you could wrap the whole program together.

Mr. EUELL. They have talked to us about those plans and that is one of the reasons they agreed to let us have the land to build the training lab on. They felt it would enhance the whole complex.

Mrs. HANSEN. That is what I am after because it seems to me that that whole area could stand a little more beauty.

Mr. EUELL. It certainly could.

Mrs. HANSEN. I just thought I would ask you because we have an item in the budget.

COMPETITION BETWEEN ART GALLERIES

Mr. RIPLEY. I should report that the Hirshhorn Gallery will open October 1 and that Mr. Hirshhorn has completed his gift of \$1 million.

Mr. YATES. Will Hirshhorn compete with the National Gallery in contemporary art in its new building? Will Hirshhorn compete with its new addition?

Mr. RIPLEY. I don't know who is going to compete with whom.

Mr. YATES. Won't that be for contemporary art?

Mr. RIPLEY. They are going to have contemporary art.

Mr. YATES. And Hirshhorn will have it. But perhaps it is desirable. So many contemporary art centers will make Washington the art capital—at least, the contemporary art center of the world.

Mr. RIPLEY. We are. There are relatively few old masters left to look for. That is part of it. If you build a contemporary building I think it is more appropriate to have—

Mr. YATES. Is there competition between galleries?

Mr. RIPLEY. There is some. Of course, they have a very well established and fine program of their own with their own funds. It is difficult always to avoid having some degree of competition in related museums but I do know that our directors are in touch with each other and that they talk about whether or not one should get a Matisse versus something else.

I think in general there is a certain sensitivity of understanding about how many of this or how many of that do you want, and we can have two or three Matisses this week in the other gallery and this kind of thing. I think it is under the circumstances really very good. A little competition among galleries is always useful and good. That is one reason I have been very keen about the Corcoran program.

Corcoran is a private gallery here in Washington and has things to say that perhaps the Government-supported or Government-related galleries don't and that is good.

Mr. YATES. You also have contemporary collections in your National Collection of Fine Arts.

Mr. RIPLEY. Yes, indeed. They are sort of a legislated original gallery to do that kind of thing, to stimulate especially American contemporary art.

NEW FACILITIES

The Air and Space Museum, Madam Chairman, is proceeding on schedule, and we are very proud of that fact. Mr. Offenbacher is here in case you have any questions about the attention of the GSA.

We are proposing gradually to open Hillwood to visits. It has been left to us in the will of Mrs. Post.

COST OF MAINTAINING THE HILLWOOD ESTATE

Mrs. HANSEN. Right on that point I better ask you a question because we have Mar-A-Lago with the Park Service and now all of a sudden there may not be enough money for the upkeep.

Mr. RIPLEY. What would you like to ask me?

Mrs. HANSEN. Who is going to pay for the upkeep of Hillwood?

Mr. RIPLEY. It is paid for by a bequest from Mrs. Post.

Mrs. HANSEN. That is what Mar-A-Lago was supposed to be.

Mr. WYATT. How much is the bequest?

Mr. RIPLEY. \$10 million.

Mr. WYATT. And that is to be maintained intact permanently?

Mr. RIPLEY. Right, and we also have a qualifying clause that we can, if necessary, request funds from the Post Foundation. This has, of course, absolutely nothing to do with Mar-A-Lago.

Mrs. HANSEN. No.

Mr. WYATT. It has a great deal to do with it in that I don't know how many of these gifts the Federal Government can afford to accept. Look at the mess we have out toward Dulles at Wolf Trap. That was given to us and it was a very clear understanding it wasn't going to cost the taxpayers a nickel. It is in deep financial trouble. It is going to cost the taxpayers millions of dollars before we are through with it and I think there is a very direct connection.

It raises the whole question as to the adequacy of the funding for maintenance and operation of any of these gifts that are given to us. They are given to us with all good intentions but there are very definite tax advantages to the donor making these gifts.

Mr. RIPLEY. I thoroughly agree, Mr. Wyatt. I know we have looked into the problems of how we would be able to run this thing free and clear and we believe that we have satisfied the problem in this case, but we do not speak for other groups or other agencies.

It is a serious problem. I quite agree with you there is no reason why you have to then assume that the funds to support it have to come out of the Federal budget.

Mr. WYATT. On Hillwood are you satisfied that there will be a sufficient income from the endowment to not only maintain the upkeep of the physical properties but also to operate the properties?

Mr. RIPLEY. Absolutely.

Mr. WYATT. So that there will be no taxpayer cost?

Mr. RIPLEY. We would not receive it on any other basis and our Regents stressed this repeatedly.

Mr. WYATT. Of course we have had those assurances before and we have wound up with a big load for the taxpayers. I just hope that it turns out this way.

Mr. RIPLEY. We believe if there is a problem of this sort that we would far prefer just to give the whole thing back and let somebody else run it.

Mr. WYATT. I am not sure that is so easy.

Mr. RIPLEY. Of course we are not committed to operate it on any other basis.

Mrs. HANSEN. Is this to be opened to the public at specified times or not?

Mr. RIPLEY. Yes. Admission will be charged and the Regents have approved that.

PARK SERVICE PROPOSAL CONCERNING MAR-A-LAGO

Mr. YATES. I think you ought to go back to Mar-A-Lago.

The Park Service indicated to us they didn't know whether they wanted Mar-A-Lago and they thought they would like to turn it over to the Smithsonian. That is the reason we thought you might have at least a remote interest at this time.

Mr. RIPLEY. May I say with the greatest pleasure that this is the first I have heard of that.

Mr. YATES. Really?

Mr. RIPLEY. Yes.

Mrs. HANSEN. I think it was the first time they thought of it.

Mr. RIPLEY. The Smithsonian is not a sort of scrapbasket, you know. to have things thrown at. We exercise rational judgment and we refuse things and turn things down all the time.

It is perfectly within our mandate to say yes we can do this and no we can't do that so we are not about to get committed to doing something unless we have looked it squarely in the eye.

I am not speaking out of anything more than plain commonsense. You cannot accept white elephants. We refuse to take them even though Ted Reed might want them.

Mrs. HANSEN. Dr. Reed would take six white elephants if he could get them and you know it.

INTERNAL PROGRAM AND BUDGET REVIEW

Mr. RIPLEY. We, in the past year, have been doing a lot of internal judging of our base operations and our priorities. We have been having reviews. I would like to give credit to Mr. Brooks for his salient look at the internal workings of the Institution. We believe that we can, through a new Council of Directors representing our museums and laboratory activities, make a very sensible and hard-headed approach toward what our budgeting should be, what our future should be in a variety of programs we are already administering.

I should point out that although we come each year, as it were, as suppliants to this table to ask for funds, and they always seem to be increasing funds, that we are constantly trying to see how we can pare down expenses for our existing commitments.

I am happy to consider programs that I have defended at this table in the past which are, in effect, phasing out. We are glad to phase out programs as they reach completeness.

For example, our whole approach toward the Bicentennial has been that we would not build onto our base and we would not have a continuing base appropriation going on for an indefinite number of years into the future, well beyond anybody's expectations for Bicentennial activities. Bicentennial requirements will phase out beginning in 1975 and then 1976. This is the way to look at a program from our point of view, that we take people on contract rather than on a permanent basis.

IGNORANCE CONCERNING CONSTITUTION

Mrs. HANSEN. I hope you will be doing some planning concerning the Federal Convention and the adoption and ratification of the Constitution. I think of all the Bicentennial activities, it is important to do something to provide for a better understanding of what is in the Constitution.

I hate to tell you but I don't think the average American has the vaguest idea about what is in the Constitution nor how it was made, nor how it was ratified, nor the processes of amendment and so on. It is a tragic thing. We are celebrating, really, a declaration of human rights in 1776, but then to implement the declaration of human rights we have the making of the Constitution. I am literally appalled that the average American voter has no more idea of what is in the American Constitution than he has of what is in the middle of the Moon.

Mr. RIPLEY. I agree with you, Madam Chairman, and I know that we will phase out in the process a slowly diminishing series of exhibitions into 1981 or 1982 of events correlated with those particular years. We have been running a very fascinating monthly article in the Smithsonian Magazine about events that happened in that month of that year 200 years ago and we will go on doing this kind of thing.

Mrs. HANSEN. It has been good, too.

The average person on Main Street doesn't get the opportunity to share your magazine. This is the problem.

HIGHLIGHTS OF APPROPRIATION REQUEST

Mr. RIPLEY. In regard to our budget requests for 1975, I would like to summarize and highlight them by saying that we are requesting total appropriations of \$97,384,000 presented in several accounts as compared with 1974's request, which includes a pay raise supplemental for \$86,651,000.

CONSOLIDATION OF ACCOUNTS

These accounts are structured somewhat differently from last year. At the specific request of the Office of Management and Budget, six appropriation accounts have been consolidated into three.

The Science Information Exchange account has been incorporated into our Salaries and Expenses account at their request, and the three separate construction accounts—Restoration and Renovation of Buildings; a familiar one, Construction and Improvements of the National Zoological Park; and Construction—have been combined to form a single new account entitled Construction, Restoration, Repair, and Improvements.

Mr. YATES. Doesn't Science Information Exchange get lost in that broad general category of Salaries and Expenses?

REQUEST FOR SALARIES AND EXPENSES

Mr. RIPLEY. Not as far as the accounting is concerned because it is still listed separately, and we show exactly the proportion of appropriated funds the exchange receives and the proportion of funds that it derives from agencies utilizing its services.

We believe we can show it, even though we have been requested to incorporate it, effectively. Our operating budget that we are seeking this year for 52 line items is \$71,559,000 and that is detailed in the submission that we will be talking about.

About a 19-percent increase is represented by this request above our estimated 1974 base, which includes the pay raise supplemental.

Mrs. HANSEN. Part of this is pay raise. How much is the pay raise?

Mr. RIPLEY. \$3,203,000 is in our 1974 base as a supplemental request.

Mrs. HANSEN. But what about your 1975 request? You have several things built into your increase such as annualization of pay costs.

Mr. RIPLEY. That is right, approximately \$800,000.

Mrs. HANSEN. Then you have this new little item GSA rental.

Mr. RIPLEY. Right.

Mrs. HANSEN. And then you have your escalation, your inflationary costs. Isn't this true?

Mr. BROOKS. Yes, Madam Chairman.

Mr. RIPLEY. Can you give us that?

Mr. BROOKS. Yes.

Of those increases you spoke to, Madam Chairman, the first one, the necessary pay increase for 1975 totals \$1,856,000. Of that the annualization of the pay increases that were experienced in fiscal 1974 is \$789,000. The anticipated step increases, that is, the normal step increases for employees, during 1975 is \$884,000, the extra workday occurring in 1975, \$153,000, and social security benefits estimated in the budget at \$30,000.

I would take the opportunity if I may to make a correction there. That was incorrectly calculated. It should be \$16,000. So there is \$14,000 less in our total request.

Mr. RIPLEY. Then space rental of \$964,000; then, of course, postage rate increases, \$80,000.

Mrs. HANSEN. Your postage rates have gone up. What will the postage rate provide in the way of an increase?

Mr. BROOKS. \$80,000.

INCREASES RESULTING FROM INFLATION

Mrs. HANSEN. And then your inflation rate is about 10 percent?

Mr. BROOKS. It is running that right now, yes, Madam Chairman.

Mrs. HANSEN. But your fuel costs are going to rise more than 10 percent, are they not?

Mr. RIPLEY. I am sure they will.

Mrs. HANSEN. And food for Dr. Reed's tigers.

Mr. RIPLEY. The food costs are going up astronomically for stock, as you know very well, Madam Chairman, and this is reflected in problems of special feed that we have to face now at the zoo.

Mr. BROOKS. There are certain specific requests, Madam Chairman, of that kind which come into the organizational budget submissions.

For example, at the zoo this is a miscellaneous support increase of \$113,000. It is a 10-percent spending increase in essential programs, and Dr. Reed can talk to what portion of that is for the food.

MAJOR PUBLIC COMMITMENTS AND CORRECTION OF SUPPORT DEFICIENCIES

Mr. RIPLEY. In regard to our basic S&E request for an increase this year, almost half of it, certainly about 40 percent of it, is in connection with two major public commitments.

One is the American Revolution Bicentennial, which as I mentioned earlier is part of a phased program of buildup and decrease, and the second is the opening of the Air and Space Museum, the development of which we are phasing so that some 50 percent of that space will be fully manned with permanent exhibits by the time it is open July 4, 1976.

This involves building exhibits, storing exhibits for the time being, making temporary exhibits for the rest of that space, hiring people to do a great deal of this work, and raising our performance to meet the goal of that opening.

We then have, in addition, large commitments, which we have thoroughly surveyed in the Institution during the last year, for supporting our programs. This is the backup, as it were, of running the research and exhibit programs throughout the Institution. We have decided to place all our bets, as it were, for the coming years, on building up the support for our existing research staff with supporting staff, for instance, major publication support and conservation support.

Additionally, for the opening of the Hirshhorn Museum and Sculpture Garden, we are requesting no additional program funds but instead are reflecting a slight program reduction of \$46,000 in our base.

We also applied a reduction of some \$28,000 in the Major Exhibition program toward meeting these public commitments.

The support for our staff, our support area, will represent about 40 percent of our request this year. I am prepared to answer any specific or detailed questions, Madam Chairman.

CHANGES TO INTERNAL ORGANIZATION

Mrs. HANSEN. You mention that during fiscal year 1974, several significant changes to the internal organization of the Institution have been accomplished and you expect these to increase management effectiveness.

Please describe the changes that have occurred and indicate what improvements in effectiveness you envision?

Mr. RIPLEY. We have attempted to divide up, for more direct management supervision, the programs of exhibits support, education, buildings maintenance, and security into specific areas. For instance, we have a new security services organization under Mr. Burke here.

We have in that organization included not only all our guard services and the support for the guards but our elevator operators and we have, we believe, an organization now which is effective in controlling vandalism, answering questions of the public, and responding in a necessary way with regard to security or health problems and other things of this sort that may arise.

We have the ability now to have a very small plainclothes staff which is effective in stopping accidents or malicious and criminal incidents at the source, and Mr. Burke would be well prepared to speak to these, we believe, improvements and efficiencies.

We have also, under Mr. Ault reorganized our buildings management department so that we now have a separate planning office to handle engineering planning relations with contractors. We have, at the same time, broken up some of the structure of the buildings management services so as to give more support to the individual building directors, the directors of galleries and museums, so they will have units within their own buildings which will more effectively service them.

These are all efficiencies as we conceive of them to be able to make the individual bureaus, the individual galleries and research laboratories, more responsive and more responsible in themselves, and Mr. Ault would be able to speak to any of those issues.

AMOUNT OF VANDALISM

Mrs. HANSEN. Is your vandalism increasing or decreasing?

Mr. RIPLEY. Mr. Burke, would you like to answer that?

Mr. BURKE. Our rate of vandalism is decreasing. For the most part, our recent vandalism has not been directed against art objects, but occurs in bathrooms, halls, cafeterias and the like where vandals roam about. To reduce vandalism against art objects, we have concentrated the efforts of our guard force and a plainclothes force, which I have been forced to organize this year from within existing resources, to identify and deter potential perpetrators. As a result of this action we do have a downward trend in vandalism.

EVENING HOURS

Mrs. HANSEN. Let me ask you also, Dr. Ripley, how about your evening hours? In view of the fuel problems and the air-conditioning and so on, are you planning any change in the evening hours?

Mr. RIPLEY. Not as far as we have determined at the present although we are watching this very carefully because there is absolutely no point, as was found in the National Gallery, for example, in keeping a building open for an extra hour, to 10, when all the people have left by 9. This has to be monitored, but we will start April 1 with our usual summer series of longer opening hours and then watch it and see what happens. We will pull back if necessary.

Mrs. HANSEN. Have you any idea what percent of the evening hours are used by the out-of-town visitors and those in-town visitors?

You remember, Dr. Ripley, when the committee urged you to go into this we had hoped that you would get young people in off of the street and hopefully into these institutions.

Mr. RIPLEY. Yes.

Mrs. HANSEN. So they might share something. So we want to know what your experience has been.

Mr. RIPLEY. We have made surveys in the past of the kind of visitation that we get at different hours of the day. I am not sure how they ran last year. I don't know whether anyone here would have any information on that. I don't recall having seen it.

But our impression, I believe, has been relatively substantiated that these are neighbors, people who live in the Washington area, who tend to come in off-hours, that is, off-office hours. There are more of them at that time, whereas there are more tourists in the on-hours except at the lunch hour.

We get a lot of visitation at lunch hour from neighborhood people, people in the District.

Of course the parking situation is so awful in our neighborhood that it makes it very difficult for most people really to get anywhere near the place because the parking, numbers of spaces available, is so limited and the general transportation seems so relatively complex.

Mrs. HANSEN. Where do they park in those evening hours?

Mr. RIPLEY. That is the advantage of coming then because they can park in the area when it is otherwise more or less deserted.

EMPHASIS ON SUPPORT REQUIREMENTS

Mrs. HANSEN. Your fiscal year 1975 budget places emphasis on administrative and technical support activities and you plan "to defer all but essential program growth, almost entirely associated with the Bicentennial effort." This is a change in approach from prior years.

What considerations resulted in this change?

Mr. RIPLEY. There was a thorough review process that occurred in the past year, Madam Chairman, participated in by all major departments and bureaus of the institution. The overwhelming consensus of the members of the staff was that we should emphasize one specific need and that was support—support of our existing staffs and support of our existing exhibits—and attempt to see how we can round

out the kinds of support that have always been eluding us in past years.

I think that is, in effect, the impression that we have of our need.

REASON FOR CONSOLIDATION OF APPROPRIATION ACCOUNTS

Mrs. HANSEN. You discussed the consolidation of the six appropriation accounts into three upon the advice and direction of the Office of Management and Budget. What was in their mind in doing this?

Mr. RIPLEY. Mr. Jameson, do you know specifically what is behind the concept?

Mr. JAMESON. I will be candid, the story I get from the Office of Management and Budget is that their main thrust in this, as far as they were telling us, was simply to reduce line type in the appendix of the President's budget by having fewer separate appropriation accounts. This is the argumentation that we were given by the Office of Management and Budget.

Mrs. HANSEN. That is kind of a feeble excuse.

Mr. JAMESON. It sounded a bit that way to us. I think I can assure you as far as the Smithsonian is concerned we will continue to present our budget to this committee and to the Senate committee along the same appropriation lines as we have in the past. There is absolutely no thought at the Smithsonian that this is a device to bury things in our appropriation by consolidation.

Mrs. HANSEN. Yes; because I can just see this as a burial process.

Mr. JAMESON. You will see, despite the fact that in the President's budget those accounts are consolidated, our budget document looks exactly the same as it has in prior years by our giving separate identity to these appropriation accounts.

We do show the science information exchange as a line item in salaries and expenses, but it is almost exactly the same as you have seen it in prior years.

NEW LANGUAGE IN SALARIES AND EXPENSES ACCOUNT

Mrs. HANSEN. You also propose the following new language in your salaries and expenses account:

"Provided, That funds appropriated herein are available for advance payments to independent contractors performing research services or participating in official Smithsonian presentation."

Please insert in the record a detailed explanation for this new language. Briefly highlight for the committee what this involves and what is your legislative authority for this new language.

Mr. RIPLEY. We will do so.

[The information follows:]

EXPLANATION FOR NEW LANGUAGE IN THE SALARIES AND EXPENSES ACCOUNT

The new language proposed for the salaries and expenses account is intended to enable the Institution to make use of the services of researchers, performers and participants in official presentations who do not have the financial resources

to advance funds for their own expenses. The need to wait for payment and reimbursement until after the task has been completed imposes too great a burden for many persons such as members of Indian tribes, self-employed craftsmen, and scholarly researchers whose services are necessary for Smithsonian programs.

Advances of public funds may be made only if "authorized by the appropriation concerned or other law." 31 U.S.C. 529. Thus, an appropriation language change can be sufficient to authorize an advance of funds which is necessary to carry out an otherwise authorized activity. See 19 C.G. 758, and 41 C.G. 394.

The programs concerned, under the division of performing arts, have been approved annually by the Congress since 1967 in the budget presentation and appropriations process. The primary authority for this activity is contained in 20 U.S.C. 41, establishing the purposes of the Institution, "for the increase and diffusion of knowledge among men," and in 20 U.S.C. 42, entrusting the conduct of the Institution's business to the Board of Regents.

Mrs. HANSEN. Will you highlight for the committee what it is all about?

Mr. BROOKS. That basically, Madam Chairman, relates to our need for participants in the Festival of American Folklife. We have participants of all kinds, fiddlers, dancers, potters, story tellers, Chesapeake Bay skipjacks. It varies every year.

Very often, in fact normally, these people are not professionally engaged in the pursuit for which we ask them to appear, that is, they don't make their living at it. Very often they simply do not have the money to pay their own way and be reimbursed.

We are seeking this authority, therefore, in order to make available at the Festival of American Folklife the kinds of people who enrich that festival and who otherwise could not afford to appear.

AUTHORIZING LEGISLATION FOR NATIONAL MUSEUM ACT

Mrs. HANSEN. You have included \$1 million in your budget request for the National Museum Act for which authorizing legislation has expired. What is the current status of legislation to continue this program? Are there any other budget requests for items which are not authorized?

Mr. RIPLEY. Madam Chairman, that act is being reauthorized at the present time. We understand the subcommittee in the House has reported it out to the full committee and it will be presented to the floor before the end of this fiscal year.

We understand that this has happened in the Subcommittee on Library and Memorials.

In the Senate I believe that they will follow suit in this regard. As far as the rest of our authorizations are concerned, this is the only piece of legislation that has a reauthorization attached to it.

CURRENT MEMBERSHIP OF BOARD OF REGENTS

Mrs. HANSEN. Please insert in the record a listing of the current membership of your Board of Regents.

Mr. RIPLEY. We will do so.

[The information follows:]

SMITHSONIAN INSTITUTION BOARD OF REGENTS

Hon. Warren E. Burger, Chief Justice, Supreme Court, Chancellor, Smithsonian Institution.
 Hon. Gerald R. Ford, Vice President of the United States.
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 Hon. Henry M. Jackson, U.S. Senate.
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 Mr. John Paul Austin, Citizen Regent from Georgia.
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 Mr. Crawford H. Greenewalt, Citizen Regent from Delaware.
 Mr. Caryl P. Haskins, Citizen Regent from Washington, D.C.
 Hon. A. Leon Higginbotham, Jr., Citizen Regent from Pennsylvania.
 Mr. James E. Webb, Citizen Regent from Washington, D.C.
 Mr. Thomas J. Watson, Jr., Citizen Regent from Connecticut.
 Mr. S. Dillon Ripley, Secretary.

CONDITION OF OWLS IN THE TOWER

Mrs. HANSEN. We have an excerpt on the "Owls in the Tower." How are they surviving?

Mr. RIPLEY. The owls have produced six eggs and so this is very good.

The first baby hatched yesterday or the day before. As the young grow up a little bit, the parents will be willing to come back into the loft looking for food for them because their homing instinct will then be fully developed. This is why we believe they will all continue to live there, in the new apartment.

SALARIES AND EXPENSES

Mrs. HANSEN. We will insert pages A-1 through A-114.
 [Justification pages A-1 through A-114 follow:]

SMITHSONIAN INSTITUTIONFISCAL YEAR 1975 ESTIMATES OF APPROPRIATIONSGENERAL STATEMENTOrganization and Performance

Founded in 1846, the Smithsonian Institution is an independent establishment devoted to public education, basic research, and national service in the arts, sciences, and history. Centered on the Mall in Washington, D. C., it also operates major facilities and activities elsewhere in Washington, across the country, and overseas.

One of the world's leading research centers, the Smithsonian is also the world's largest museum complex, attracting, with the Zoo, more than twenty million visitors yearly as well as additional millions who view traveling exhibits. As custodian of the national collections, it possesses more than seventy million objects and specimens, about three percent of which are on public display while the rest are available for scholarly research by Smithsonian staff and many hundreds of visiting students, scientists, and historians each year.

The Smithsonian complex consists of ten major exhibition buildings in the fields of science, history, technology, and art, including the recently acquired Hillwood estate; a zoological park; a preservation and storage facility at Silver Hill, Md.; a conference center at Elkridge, Md.; two natural preserves, in Panama and on the Chesapeake Bay; the innovative Anacostia Neighborhood Museum which operates in a low-income area of the city in cooperation with the local community; an oceanographic sorting center in Tunisia, whose work parallels the programs of the Institution's oceanographic center in Washington; an observatory at Mt. Hopkins, Ariz.; and supporting administrative, laboratory, and storage areas.

A wide range of programs is conducted in cooperation with other institutions, universities, and government agencies here in the United States and on every continent. Many of the research projects in nations abroad are funded through the use of excess foreign currencies. More than 1,000 research publications, exhibit catalogues, education pamphlets, information leaflets, etc. were prepared in the past year. Other communication activities include radio, television, motion picture programs, and the successful new magazine, Smithsonian, which now has over 500,000 subscribers.

Program emphasis in FY 1975 will be concentrated on the following activities: opening the Hirshhorn Museum and Sculpture Garden by the fall of 1974; preparation for the Institution's participation in the Washington, D. C., American Revolution Bicentennial effort as well as scholarly efforts and traveling exhibits that will have national significance; building construction, research, collections restoration, and exhibits preparation pointing towards the opening of the National Air and Space Museum on July 4, 1976; and the continuing phased implementation of the Master Plan for the National Zoological Park.

Management Effectiveness

During FY 1974 several significant changes to the internal organizational alignment of the Institution have been accomplished. These actions are designed to increase management effectiveness (utilizing existing manpower and dollar resources) by aligning related or complementary functions or by strengthening the ability of certain major museums and galleries to administer directly key aspects of their programs. Notable among these changes are the following:

--Transfer of personnel and associated resources from the Office of Exhibits Programs to the National Museum of History and Technology, National Museum of Natural History, and National Air and Space Museum to help meet the ongoing and expanding exhibits programs of these national museums. A small Office of Exhibits Central has been retained to provide certain specialized and other services.

--Reorganization of the Buildings Management Department to form the Office of Facilities Planning and Engineering Services (OPFES) and the Office of Plant Services (OPLANTS). Planning and design, engineering, architectural, and construction supervision functions have been concentrated in OPFES to permit more effective development, review, and management of alteration, renovation, and construction projects. Responsibility for the physical maintenance and operation of buildings and facilities has been centered in the Office of Plant Services. This office's custodial and labor forces, however, have been administratively assigned to the museum and office directors who have direct responsibility for the condition of the buildings.

--Transfer of elevator operators from the Buildings Management Department to the Office of Protection Services to strengthen the latter's ability to control access to non-public areas.

--Transfer of the mail and messenger staff from the Office of the Registrar to OPLANTS in order to align them more closely with necessary vehicle services.

--Transfer of Elementary and Secondary Education personnel and resources to the National Museum of Natural History, the National Museum of History and Technology, the National Air and Space Museum, the National Collection of Fine Arts, and the National Portrait Gallery to permit the respective directors to provide greater direction and focus in the development of educational programs. A small central office will provide overall coordination as a broad service to the public.

--Incorporation of the Print Shop (formerly under the Smithsonian Institution Press), the Duplicating Section, and the Photographic Services Division to form the Office of Printing and Photographic Services. This action was taken to centralize in-house reproduction capabilities.

Consolidation of Appropriation Accounts

At the request of the Office of Management and Budget, the Smithsonian has consolidated several appropriation accounts. The Science Information Exchange has been incorporated into the Salaries and Expenses account. The three separate construction accounts--Restoration and Renovation of Buildings; Construction and Improvements, National Zoological Park; and Construction--have been combined to form a single, new account entitled Construction, Restoration, Repair, and Improvements.

For FY 1975 the Institution is requesting the following appropriations:

	<u>1974</u> <u>Appropriations</u>	<u>Requested</u> <u>1974</u> <u>Supplemental</u>	<u>Requested</u> <u>1975</u> <u>Increase</u>	<u>1975</u> <u>Estimates</u>
Salaries and Expenses:	<u>\$57,088,000</u>	<u>\$3,203,000</u>	<u>\$11,268,000</u>	<u>\$71,559,000</u>
Salaries and Expenses	55,438,000	3,158,000	11,193,000	69,789,000
Science Information Exchange	1,650,000	45,000	75,000	1,770,000
Special Foreign Currency Program	<u>4,500,000</u>	<u>-0-</u>	<u>-0-</u>	<u>4,500,000</u>
Construction, Restoration, Repair, and Improvements:	<u>21,860,000</u>	<u>-0-</u>	<u>-535,000</u>	<u>21,325,000</u>
Construction and Improvements, National Zoological Park	3,790,000	-0-	6,210,000	10,000,000
Restoration and Renovation of Buildings	1,070,000	-0-	255,000	1,325,000
Construction (Appropriation to Liquidate Contract Authority)	<u>17,000,000</u>	<u>-0-</u>	<u>-7,000,000</u>	<u>10,000,000</u>
Total	<u>\$83,448,000</u>	<u>\$3,203,000</u>	<u>\$10,733,000</u>	<u>\$97,384,000</u>

Highlights of the budget requests are as follows:

A. Salaries and Expenses

<u>1973 Appropriation</u>	<u>1974 Estimate</u>	<u>1975 Estimate</u>
\$53,233,000	\$60,291,000	\$71,559,000

This appropriation provides for the regular operating programs in the museums, galleries, zoological park, research laboratories, and other program units; for special programs of an Institution-wide nature (such as the American Revolution Bicentennial program); and for program support activities. This funding is allocated by major groups as follows: (Organizational allocation appears on pages A-2 and A-3.)

	<u>1974</u> <u>Base</u>	<u>Requested</u> <u>Increase</u>	<u>1975</u> <u>Estimate</u>
Science.....	\$23,760,000	\$3,113,000	\$26,873,000
History and Art.....	8,696,000	619,000	9,315,000
Public Service.....	2,123,000	218,000	2,341,000
Museum Programs.....	4,510,000	1,029,000	5,539,000
Special Programs.....	3,110,000	2,503,000	5,613,000
Administration, Protec- tion, and Support.....	9,127,000	1,844,000	10,971,000
Plant Services.....	8,965,000	1,942,000	10,907,000
Totals	<u>\$60,291,000</u>	<u>\$11,268,000</u>	<u>\$71,559,000</u>

In February 1973 an annual conference was initiated by Smithsonian management to define goals and priorities. One of the important outcomes was the determination that

the capabilities of many of the administrative and technical support activities and functions, e.g., conservation, libraries, registration, and data processing, have not kept pace with growing program performance demands. As a result, productive efforts in such areas as research, curation, and exhibition have been made more difficult and in some cases impossible. Accordingly, the decision was made to defer all but essential program growth, almost entirely associated with the Bicentennial effort, in order to make a concerted effort in FY 1975 to correct the imbalance of funds available for support services.

Major purposes to be served by the requested funding increase include:

1. Support Increases: \$4,744,000

- Registration - to permit proper and efficient registration of accessions to the collections and recording of original documents and to ensure prompt handling of public inquiries many of which relate to collections (\$134,000)
- Conservation - to establish sufficient capability for specialized treatment and analytical services required to prevent deterioration and loss of the collections and to increase technician support for the physical maintenance of the collections (\$458,000)
- Libraries - to permit the acquisition and processing of library materials required to serve increasing research and exhibit efforts (\$491,000)
- Automatic Data Processing - to increase the application of computer technology in the scientific research and collections management areas (\$163,000)
- Photography - to provide an improved capability for the microfilming of Institution documents and the production of prints and slides requested by scientists, curators, and the public (\$68,000)
- Printing and Reproduction - to provide editorial assistance for the production of exhibit catalogues and research publications and to fund the increase in printing costs resulting from inflation and larger volume (\$178,000)
- Archives - to improve capabilities for identifying, preserving, and maintaining materials necessary for documenting Smithsonian history and objects and specimens in the collections (\$130,000)
- Public Orientation and Education - to expand the Institution's outreach efforts and its ability to provide educational materials, tours, etc. (\$246,000)
- Protection - to provide adequate protection and security of buildings, exhibits, collections, and visitors (\$777,000)
- Buildings and Facilities Management - to fund custodial, maintenance, and transportation requirements (\$1,384,000)
- General Administration - to provide assistance in executive management, purchasing, property control, personnel, accounting, legal matters, facilities planning and engineering, and supportive clerical work (\$715,000)

2. Program Increases (Bicentennial Related): \$3,599,000

- Preparation of exhibits, scholarly projects, and national outreach activities for the American Revolution Bicentennial (\$2,506,000)
- Research and exhibits planning and preparation for the new National Air and Space Museum (\$1,093,000)

3. Program Increases (Other): \$25,000

- Additional grants under the National Museum Act in behalf of the museum profession (\$99,000)
- Program offsets in the Hirshhorn and Major Exhibition programs (-\$74,000)

4. Uncontrollable Increases: \$2,900,000

- The projected higher cost of current employees caused by legislated pay raises, periodic step increases, extra work day, and higher Social Security costs for General Schedule and Wage board employees (\$1,856,000)
- The additional cost of space currently provided by the General Services Administration (pursuant to the Public Buildings Amendments of 1972) and the cost of additional space requirements (\$964,000)
- Postage indicia rate increases and related insurance costs on non-Smithsonian property, when required by the lender (\$80,000)

B. Special Foreign Currency Program

<u>1973 Appropriation</u>	<u>1974 Appropriation</u>	<u>1975 Estimate</u>
\$3,500,000	\$4,500,000	\$4,500,000

This appropriation will provide level funding to continue a program of grants to United States institutions for field research in those countries where "excess" local currencies are available. Research will be performed in the following general areas of Smithsonian Institution interest and competence: archeology and related disciplines, systematic and environmental biology, astrophysics and earth sciences, and museum programs. In addition funds are included for the second of four annual payments, each of \$1,000,000 equivalent in "excess" Egyptian pounds, to UNESCO's international campaign to preserve archeological monuments in Nubia.

C. Construction, Restoration, Repair, and Improvements

<u>1973 Appropriation</u>	<u>1974 Appropriation</u>	<u>1975 Estimate</u>
\$18,689,000	\$21,860,000	\$21,325,000

- Construction and Improvements, National Zoological Park (\$10,000,000) - Continued phased implementation of the approved Master Plan by construction of the Elephant House and Bird House environs, planning and initial construction phases of the general service and parking facility, construction of the education and administration building, planning of future projects, and buildings and facilities repairs
- Restoration and Renovation of Buildings (\$1,325,000) - Mt. Hopkins Observatory power, road, and water improvements; National Zoological Park Animal Conservation Center repairs and modifications; History and Technology Building and Natural History Building fire control systems; Arts and Industries Building renovation; South Yard visitor improvements, and other repairs and improvements to buildings and facilities
- Construction (\$10,000,000) - Appropriation to liquidate contract authority

Details on each of these operating and construction programs appear in the following sections of this budget.

SMITHSONIAN INSTITUTIONSALARIES AND EXPENSESSummary of Increase

S&E Appropriation Act, FY 1974	\$55,438,000
S&E Proposed Supplemental, FY 1974	3,158,000
SIE Appropriation Act, FY 1974	1,650,000
SIE Proposed Supplemental, FY 1974	<u>45,000</u>
Base for FY 1975	\$60,291,000
FY 1975 Request	<u>71,559,000</u>
Requested Increase	\$11,268,000

SMITHSONIAN INSTITUTIONUNCONTROLLABLE INCREASES

The following additional funds are requested for largely uncontrollable costs resulting primarily from legislation. A total of \$2,900,000 is requested for the following increased costs:

Necessary Pay and Related Benefits	\$1,856,000
Space Rental	\$964,000
Postage Indicia Rate Increase	\$80,000

Necessary Pay and Related Benefits, \$1,856,000 - This funding of \$1,856,000 is for personnel compensation and personnel benefits for the projected higher costs in FY 1975 of the FY 1974 staff. These increases accrue to employees because of legislated pay raises and within-grade step increases; an additional paid work day; and higher social security payments on the part of the employer. A chart showing Necessary Pay by organizational unit is located on page A-8. These costs are calculated on a position-by-position analysis. The cost has been reduced by such factors as turnover and lapse savings. Absorption of these costs reduces the funds available for spending in other object classes. This can seriously handicap programs. In FY 1974 the Smithsonian Institution did absorb \$284,000 of its necessary pay requirements. Since this absorption diverts funds permanently into personnel compensation and benefits, it is not possible to fund any of the necessary pay in FY 1975 without curtailing spending in other objects. This would be particularly difficult at a time when funds are being sought to strengthen support areas and the Bicentennial program.

(1) Annualization of Pay Increases (\$789,000) - The FY 1974 proposed supplemental appropriation is in the amount of \$3,203,000 (\$3,158,000 for Salaries and Expenses and \$45,000 for Science Information Exchange). Included in the supplemental is \$2,517,000 for the General Schedule (GS) employees. The annual cost of the January 1973 GS increase was \$1,550,000. The part-year cost of the October 1973 GS increase was \$967,000. Also included in the proposed supplemental is \$641,000 for Wage board increases. This includes the following wage actions: \$221,000 for additional costs for the October 1972 and April 1973 Wage raises which were underestimated in the FY 1974 estimates because of their timing and \$420,000 for the October 1973 Wage increase. A distribution of the supplemental by organization unit is found on pages A-2 and A-3.

A request is being made to fund the costs of the October 1973 General Schedule and Wage raises on an annual basis in FY 1975.

General Schedule: The General Schedule pay raise which was effective October 14, 1973, must be annualized in FY 1975. Funds are sought to finance the costs of this raise from July 1 through October 13. With the \$967,000 requested in the supplemental for FY 1974 and the \$589,000 requested here, the cost of this raise is \$1,556,000.

Wage: The Wage pay raise which was effective October 28, 1973, must also be annualized in FY 1975. The Smithsonian Institution employs over 760 Wage employees. Prevailing practices call for the Wage pay scales to be reviewed periodically by the Civil Service Commission to determine how they compare to wages paid similar private employees in the same geographical area. In the Washington area this has resulted in the Wage employees receiving a pay increase in about October of each year. It was found this past October that employees in Wage grades 1 through 3 were being underpaid 50 cents per hour. Many of the janitor and custodial personnel are in these grades. There are 269 employees currently in these grades. This has added considerably to the cost of this raise. An amount of \$200,000 is required to annualize funding.

(2) Step Increases (\$884,000) - In any one fiscal year, the costs of periodic step increases are doubly felt. First, is the additional cost of financing the full-year costs of the periodic increases granted in the previous year; and second, the additional costs of new periodic increases granted.

General Schedule: The Government Employees Salary Reform Act of 1964, Public Law 88-426, provides for General Schedule employees to receive increases in pay at periodic intervals. Such an increase must be granted unless an employee is not performing at an acceptable level of competence. A negligible number of within grades are withheld each year. Provisions in the same law provide for outstanding performance by any employee to be recognized by a "quality step". An average of 150 employees are so designated each year. The average grade for General Schedule employees at the Smithsonian is 8.3. The cost of a within-grade in General Schedule grade 8 is currently \$399 including personnel benefits. This request averages only \$351 per employee. Some 2,100 employees are involved in this review. About \$734,000 is required.

Wage: Periodic increases in pay for Wage employees are accorded by law and prevailing practices. The "steps in grade" stopped at step 3 until FY 1973 when they were extended to include 5 steps. This will mean that the costs of these actions will increase as more people will be receiving them for a longer period before reaching the top of the grade. In FY 1973 employees in step 3 went to step 4. The waiting period between steps is two years. Therefore, a large number of employees, estimated at over 300, will go to step 5 in FY 1975. Wage board steps cannot be denied an employee who has spent the time in grade. An amount of \$150,000 is required.

(3) Extra Work Day (\$153,000) - Employees' normal yearly compensation is based on being paid for 260 days per year. Some years have 261 work days and when leap year occurs there are 262. FY 1975 will have 261 work days; therefore, additional funding of \$153,000 is required to finance employees' salaries and benefits for that additional paid day.

(4) Social Security Benefits - Employer's Contribution (\$30,000) - New provisions to the law will have two effects on the employer's contribution for these benefits. First, as of January 1, 1974, the salary amount covered by the law has been increased from \$10,800 to \$12,000. Second, the percent of contribution on both the part of the employee and the employer has increased from 5.85 percent to 6.35 percent. About 300 employees are covered by Social Security during any year. These employees are temporary and therefore do not pay into the Civil Service Retirement Funds. The average cost is about \$100 per employee. Additional costs to the Smithsonian are estimated at \$30,000.

Space Rental, \$964,000 - An appropriation of \$964,000 is requested to fund obligations pursuant to the Public Buildings Act of 1972, Public Law 92-313 or for equivalent space as best serves the needs of the Institution. Of this amount, \$724,000 represents the General Services Administration's estimate of the net additional cost of space now provided by or through them. The balance, \$240,000, represents an estimate of the cost of additional space requirements but is included in this request for purposes of consolidated presentation.

All Smithsonian museums and galleries, and most of its other research and collections management facilities, are independently administered by the Institution under its Board of Regents. Some additional space, also directly administered by the Institution, is rented directly from commercial sources. As a third category, the Smithsonian occupies considerable space through the GSA in a number of buildings in Washington, D.C.; Rockville, Maryland; New York; and Alexandria, Virginia. These facilities consist of space controlled directly by GSA and special purpose space leased by GSA. In the past, GSA administered space was obtained by the Institution in one of several ways. First, GSA was reimbursed annually for payments to commercial owners. Second, Smithsonian appropriated funds for the cost of rent and utilities

were transferred permanently to the Public Buildings' appropriation. Over the past 15 years, these transfers have totaled \$248,000 for space still used by the Institution. Third, in three instances, space was provided by GSA at no charge to the Institution.

With the passage of the Public Buildings Act of 1972, the procedure has changed. The Public Buildings Service appropriation has been eliminated for FY 1975 without returning the funds previously transferred from the agencies. For the Smithsonian Institution this means a "loss" of \$248,000. All space users will now have to reimburse GSA for its costs (including rentals from commercial owners and its administration) and, in addition, make a contribution to establish a fund to finance possible future new construction by the Federal Government.

As shown in the table on page A-9, the total amount of the reimbursement required by GSA in FY 1975 will be \$978,000 of which \$254,000 is currently available to the Institution. The balance of \$724,000 is requested in the FY 1975 appropriation.

Although the Smithsonian sees the value of this plan for providing funding for future construction needs of the Federal Government, it is unlikely that the Smithsonian will benefit from this fund because of the specialized nature of its facilities and its well-established procedures through the Executive and Legislative branches to acquire new buildings.

There is an important additional consideration in presenting this budget request for review. A significant objective of the Public Building Fund is to create more effective use of space as a by-product of direct funding responsibility. This is also of prime importance to the Institution. It is the intention of the Institution in presenting this consolidated space rental funds request to apply the funds (either by continued use of some or all of the space now under GSA or by carefully choosing alternate space in the Washington, D. C. area or elsewhere) in such a way or ways that will best serve Institutional needs. In this selection process, maximum attention would be given to seeking adequate space in a single location in order to consolidate activities, thus resulting in more efficient operations. Indeed, an active search for space is now underway. Some financial advantages may result.

There are certain additional important space requirements which may be met by the space selection process outlined above, provided adequate funding is available to serve all needs. The funding request contains, in one instance, a half-year lease situation. The GSA Depot, Building #3, Alexandria, Virginia, is scheduled for transfer to the City of Alexandria in mid-FY 1975. Full-year replacement space funding will be required. Second, the National Air and Space Museum is now engaged in the production of exhibits for the new Air and Space Building. As each exhibit is completed and demonstrated, it is programmed for container storage in anticipation of its installation in the new building. A storage facility will be required for these exhibit "packages." Third, some additional or alternate space for program administration may be required in the budget year. An amount of \$240,000 is requested to meet these needs.

Postage Indicia Rate Increases, \$80,000 - Some 3,000,000 pieces of first-class mail are sent yearly (including considerable foreign mail). This includes answers to inquiries from government and private institutions and the general public and the announcement of various musical events, film showings, and special exhibitions. About \$240,000 is in the FY 1974 budget for mail costs at current rates. The cost of first-class postage is expected to be increased from eight to ten cents per ounce in mid-FY 1974. Costs will be absorbed this year. An amount of \$60,000 is sought for FY 1975. The costs of other first-class mailings and related insurance on non-Smithsonian property, when required by the lender, are also increasing. On a full-year basis, in FY 1975 these increases are expected to cost \$20,000.

Necessary Pay
FY 1975
(Dollars in thousands)

Unit	Within Grades	Extra Day	Social Security	Wage	Annual GS-Oct	Total
Assistant Secretary for Science.....	3	1			2	6
National Museum of Natural History.....	134	25			60	219
Smithsonian Astrophysical Observatory....	16	6	1		19	42
Smithsonian Tropical Research Institute...	18	3		3	10	34
Radiation Biology Laboratory.....	8	3		5	10	26
Office of Environmental Sciences.....	7	2			10	19
Office of International Activities.....	4	1			2	7
Chesapeake Bay Center.....	6	1			2	9
National Air and Space Museum.....	34	6		3	18	61
Center for the Study of Man.....	5	1			2	8
National Zoological Park.....	40	13	5	27	101	186
Science Information Exchange.....					75	75
Assistant Secretary for History and Art...	3	1			3	7
National Museum of History & Technology...	71	12			35	118
National Collection of Fine Arts.....	29	4	1		10	44
National Portrait Gallery.....	16	2	1		7	26
Hirshhorn Museum and Sculpture Garden....	14	2			4	20
Freer Gallery of Art.....	3	1			3	7
Archives of American Art.....	4	1			2	7
Nat'l Armed Forces Museum Advisory Board..	2					2
Assistant Secretary for Public Service....	2	1			2	5
Anacostia Neighborhood Museum.....	7	1		1	2	11
International Exchange Service.....	1	1		2	1	5
Division of Performing Arts.....	1	1	1	1	2	6
Office of Public Affairs.....	4	1			3	8
Smithsonian Institution Press.....	11	1			4	16
Assistant Secretary for Museum Programs...	4	1			2	7
Conservation-Analytical Laboratory.....	6	1			2	9
Office of Exhibits Central.....	23	3		3	9	38
Office of the Registrar.....	6	1			3	10
Smithsonian Institution Libraries.....	26	3			9	38
Smithsonian Institution Traveling Exhibition Service.....					1	1
National Museum Act.....						0
Smithsonian Archives.....	2	1			1	4
American Revolution Bicentennial Program..					2	2
Environmental Sciences Program.....	1		2			3
Major Exhibition Program.....						0
Academic and Educational Programs.....	11				3	14
Office of the Secretary.....	11	2			6	19
Office of the General Counsel.....	4	1			2	7
Office of the Treasurer.....	15	1			5	21
Office of Personnel Administration.....	12	2			4	18
Office of Audits.....	2	1			2	5
Office of Equal Opportunity.....	1	1			1	3
Office of Printing and Photo Services....	4	2		5	10	21
Information Systems Division.....	6	1			4	11
Supply Division.....	9	1			3	13
Management Analysis Office.....	4	1			2	7
Office of Protection Services.....	151	17	9		32	209
Office of Facilities Planning and Engineering Services.....	4	2			4	10
Office of Plant Services.....	139	20	10	150	93	412
Total	884	153	30	200	589	1856

Federal Building Fund Space Cost Estimate
FY 1975
(Dollars Rounded)

<u>Space</u>	<u>Use of Space</u>	<u>SI Funding Available FY 1974</u>	<u>GSA Funding Requirement FY 1975</u>
1242 24th Street, N. W. Washington, D. C.	Exhibits production, publications distribution and exchange	None/ ¹	\$184,000
701 Lamont Street, N. W. Washington, D. C.	Printing and storage of shops, library, and collection items	None/ ²	116,000
2405 Martin Luther King Ave. Washington, D. C.	Anacostia Neighborhood Museum	\$7,000	8,000
12441 Parklawn Drive Rockville, Maryland	Radiation Biology Laboratory	247,000	254,000
Washington Navy Yard Building 159 (partial)	Oceanographic Sorting Center	None	201,000
14th & Maine Ave., S. W. Liberty Loan Bldg.(partial)	Editing, performing arts, Armed Forces museum study, and international art activities	None	125,000
Building #3, Alexandria, Va.	General collections and administrative storage	None/ ³	80,000/ ⁴
GSA Depot, New York	History and technology collections	None	10,000
		<hr/> \$254,000	<hr/> \$978,000
	Funding difference		\$724,000

¹ \$57,000 transferred to GSA in FY 1959.

² \$88,000 transferred to GSA in FY 1962 and 1963.

³ \$103,000 transferred to GSA in FY 1970 for full year.

} Total of \$248,000 no longer
available to Smithsonian.

⁴ One-half year. Replacement space will be required at an annualized cost.

OFFICE OF THE ASSISTANT SECRETARY FOR SCIENCE

1973 Actual..... \$198,000
 1974 Estimate..... \$143,000
 1975 Estimate..... \$159,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	<u>7</u>	<u>1</u>	<u>8</u>
11 Personnel Compensation.....	124	15	139
12 Personnel Benefits.....	11	1	12
21 Travel & Trans. of Persons.	4		4
25 Other Services.....	2		2
26 Supplies and Materials.....	1		1
31 Equipment.....	<u>1</u>		<u>1</u>
Total	<u>143</u>	<u>16</u>	<u>159</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		6	
Support Funds.....		10	

ABSTRACT - This office is responsible for overall planning, coordinating, and reviewing the progress of the fourteen science bureaus and programs within the Institution. An increase of one position and funding of \$10,000 is requested to meet the following support requirement: Public Orientation and Education - a science editor to bring the discoveries and achievements of the science bureaus to public attention. Necessary pay in the amount of \$6,000 also is being sought.

PROGRAM - The Office of the Assistant Secretary for Science advises and assists the Secretary in planning, implementing, and reviewing the progress of Smithsonian science programs. The bureaus reporting to the Assistant Secretary for Science are the National Museum of Natural History, the Radiation Biology Laboratory, the Tropical Research Institute, the National Zoological Park, the National Air and Space Museum, the Astrophysical Observatory, the Office of International Activities, the Office of Environmental Sciences, the Chesapeake Bay Center for Environmental Studies, the Center for the Study of Man, the Science Information Exchange, and the Fort Pierce Bureau. This office is also responsible for the administration of the Research Awards and the Environmental Sciences Programs.

JUSTIFICATION OF \$10,000 INCREASE (Public Orientation and Education) - The increase of activity in the science area requires a science editor (\$10,000) to devote full-time attention and render a wide-ranging variety of services to a group of science bureaus. The science editor will be responsible for documenting in popular form the scientific work at the Institution's Office of International Activities; Office of Environmental Sciences; Radiation Biology Laboratory; Tropical Research Institute; Fort Pierce Bureau; Chesapeake Bay Center for Environmental Studies; Center for Short-Lived Phenomena, which alerts the press, public, and scientific community to the occurrence of major geological and biological events; and the National Air and Space Museum's developing research and exhibit programs as this Museum prepares to occupy its new building on the Mall in 1976.

NATIONAL MUSEUM OF NATURAL HISTORY

1973 Actual.....\$6,389,000
 1974 Estimate.....\$7,589,000
 1975 Estimate.....\$8,004,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	371	13	384
11 Personnel Compensation.....	5,878	316	6,194
12 Personnel Benefits.....	500	27	527
21 Travel & Trans. of Persons..	120	5	125
22 Transportation of Things....	5	1	6
23 Rent, Comm. & Utilities.....	21	1	22
24 Printing and Reproduction...	12	46	58
25 Other Services.....	421	4	425
26 Supplies and Materials.....	182	4	186
31 Equipment.....	450	11	461
TOTAL	7,589	415	8,004
<u>Analysis of Increase</u>			
Necessary Pay.....		219	
Support Funds.....		196	

ABSTRACT - The National Museum of Natural History (NMNH) serves as a center for the natural sciences. It maintains large reference collections and conducts identification and documentation, research, collections management, exhibits, and education--including collaborative projects with universities and other institutions of learning. An increase of 13 positions and \$196,000 is requested for FY 1975 to meet the following support requirements: (1) Conservation - 11 museum technicians (\$100,000) to provide additional assistance for the care of the collections which grow at a substantial rate and are utilized increasingly each year; (2) Archives - a clerk-typist (\$9,000) and additional funding of \$21,000 to expand a program of training and curation for Indians who will work with the National Anthropological Archives; (3) Printing and Reproduction - an increase of \$46,000 to fund the rising cost and increased volume of publication; and (4) Public Orientation and Education - a technical information specialist (\$20,000) to make more information available to the public concerning the Museum's holdings and programs. Necessary pay requirements are an additional \$219,000.

PROGRAM - This Museum serves as a national and international center for the natural sciences. It maintains the largest reference collections in the nation (over 60 million objects) and has the legal responsibility (20 U.S.C. 59) to serve as the ultimate Federal repository of all collections and objects of natural history, archeology, and ethnology made by agencies of the government when no longer needed by those agencies for investigations in progress. Additionally, the NMNH is the repository for numerous extremely valuable collections obtained from other sources, such as the scientific community and academic institutions, as well as many private individuals.

The scientists at the Museum conduct a broad program of basic research on man, plants, animals, fossil organisms, rocks, minerals, sediments, and materials from outer space. Their fundamental studies in systematics and biology are providing new information required for the solution of major problems of conservation, pollution, food production, improvement of medical knowledge, and for planning national and international programs leading to predictive ecology and environmental management.

The exhibits in the Museum attract over 3.5 million visitors each year, including many hundreds of thousands of school children in tours. In FY 1974, primary efforts in the exhibit area are being devoted to the production and installation of two core exhibits: "Ice Age Mammals and the Emergence of Man" and "It All Depends," an exhibit using new and innovative audio-visual techniques to graphically demonstrate principles of ecology. The Museum's education office provides assistance for elementary and secondary school groups, and many members of the scientific staff are involved in joint educational programs with universities by teaching courses, training graduate students, and conducting science seminars. The Museum also provides leadership in the improvement of museum techniques and collections management, especially through the application of computer technology.

JUSTIFICATION OF \$196,000 INCREASE:

Conservation - Beginning in FY 1972 the Museum undertook a long-range program designed to correct operational inefficiencies resulting from the shortage of support personnel. With the support of the OMB and the Congress significant improvements have been made but the original goal of three staff assistants for each scientist, as recommended in 1969 by the Office of Science and Technology Panel on Systematics and Taxonomy in the Federal Government, has not been achieved. At this time the ratio of support staff to scientific staff is only 1.56 to 1 (see table). For the past two years an interim target ratio of 2 to 1 has been set, as discussed in previous budget presentations. When that ratio has been achieved the entire staffing situation will be reevaluated and a determination made as to the specific needs for further increase of the support staff. A request for FY 1975 of 11 positions (\$100,000) is designed to achieve a ratio of 1.67 to 1. These additional support technicians will be used to improve the maintenance of the collections and prevent loss or damage to valuable specimens because of inadequate care.

Ratios of Man-Years of Effort Between Support and Professionals^{/1}

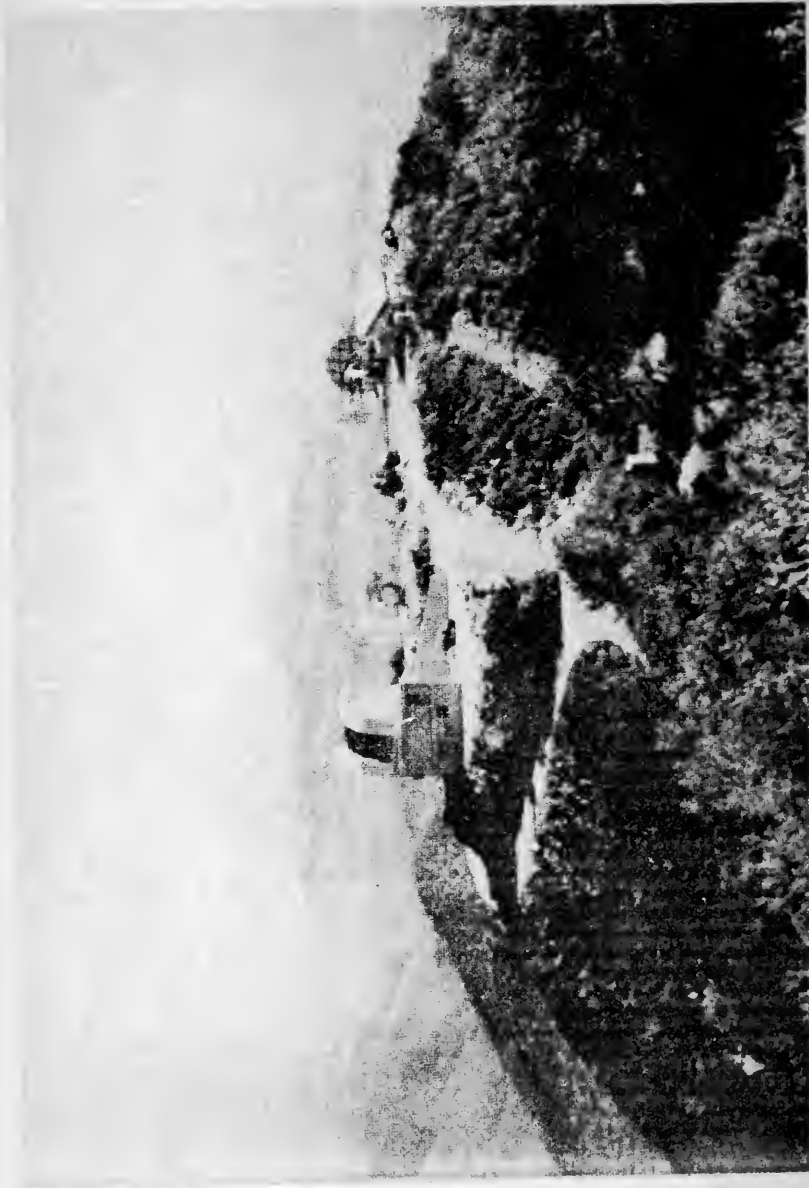
<u>FY</u>	<u>Support Staff</u>	<u>Scientists</u>	<u>Ratio</u>
1972/actual	154	108	1.43:1.00
1973/actual	169	111	1.52:1.00
1974/estimate	173	111	1.56:1.00
1975/estimate	184	111	1.67:1.00

^{/1} Ratios apply to personnel assigned directly to science support. They exclude personnel in EDP applications, Exhibits, Education, and NMNH director's office.

Archives - A clerk-typist (\$9,000) and additional funding of \$21,000 are needed to support a program of instruction and on-the-job training for American Indians selected by the various Indian tribal Councils to work at the National Anthropological Archives. Pilot efforts, using funds drawn from other Museum activities, have resulted in the training of 14 young Indians. Representatives of the Zuni, Navajo, Southern Ute, Crow, Nez Perce, Makah, Chippewa, Winnebago, and Quapaw have requested that qualified young Indian scholars receive this training. To provide such service within a reasonable period, efforts must be increased. This training will help the Indians develop, preserve and use the historical records of their own tribes, and better understand their own culture and heritage. In the course of their work, through their knowledge of tribal history and personalities, the trainees will contribute to a better understanding of the vast collections of Indian material in the Museum, accumulated over a period of more than one hundred years, and increase immeasurably the value of these collections to present and future scholars. The major portion of these new funds will be used to pay the travel and living expenses of the Indian students selected by their tribal Councils to receive the training at the Museum.

Printing and Reproduction - The results of the research by the staff of the Museum are made available to the scientific community by means of publication. In the first six months of FY 1974, the NMNH staff submitted for publication an equivalent of over 14,000 manuscript pages for the established series: Smithsonian Contributions to Botany, Earth Sciences, Paleobiology and Zoology. Printing for the series is accomplished through a Government Printing Office (GPO) contract arrangement with commercial printers. Current printing costs average \$14 per printed page, and this will increase by 8.4 percent in FY 1974 (per GPO circular letter #103 of 15 August 1973). Recent information from GPO has advised further that contract bidding will increase an additional 50 to 100 percent in FY 1975. The amount (approximately \$115,000) in the base of the Smithsonian Press for this work is insufficient to meet even FY 1974 needs. An increase of \$46,000 is requested to meet the rising cost and increased volume of production by the staff and permit timely publication of new science information.

Public Orientation and Education - One position (a technical information specialist) and \$20,000 are requested to provide educational and explanatory information about the Museum of Natural History to the public. Many of the exhibits and scientific studies conducted are of great interest and value to visitors and to the thousands who write and telephone to request information on a whole host of technical and scientific subjects. These people are representative of the large majority of our population which is not reached through scientific journals and scholarly publications. Museum guides, topical brochures, and other popular publications are needed to present accurate, easily readable information in the manner most helpful to this vast segment of the American people.



MOUNT HOPKINS, ARIZONA OBSERVATORY

Taken from Summit. Left to right: 60" Tillinghast Reflector, 12" Telescope, and 32' Gamma-Ray Reflector Facility.

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

1973 Actual..... \$2,961,000
 1974 Estimate..... \$3,195,000
 1975 Estimate..... \$3,439,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	57	10	67
11 Personnel Compensation.....	1,489	202	1,691
12 Personnel Benefits.....	127	17	144
21 Travel & Trans. of Persons..	92		92
22 Transportation of Things....	30		30
23 Rent, Comm. & Utilities.....	250		250
24 Printing and Reproduction...	17		17
25 Other Services.....	755	25	780
26 Supplies and Materials.....	135		135
31 Equipment.....	300		300
TOTAL	3,195	244	3,439
Analysis of Increase			
Necessary Pay.....		42	
Support Funds.....		202	

ABSTRACT - As part of the new joint Center for Astrophysics with Harvard College Observatory, the Smithsonian Astrophysical Observatory (SAO) pursues a broad program of research in eight principal areas: planetary sciences, high energy astrophysics, solar and stellar physics, atomic and molecular physics, geoastronomy, optical and infrared astronomy, radio astronomy, and theoretical astrophysics. Headquartered in Cambridge, Massachusetts, SAO is developing a multi-purpose observatory on Mt. Hopkins in Arizona and is participating in data gathering networks around the world.

The FY 1975 budget request proposes a program increase of 10 positions and \$202,000 to provide research support personnel in the following areas: (1) Printing and Reproduction - two positions and \$31,000 to serve the preparation and printing of research publications; (2) Building and Facilities Management - two positions and \$46,000 for operations at Mt. Hopkins; (3) General Administration - five positions and \$73,000 for personnel, procurement, and financial management purposes; and (4) Automatic Data Processing - one position and \$52,000, with funds for computer time for processing of astrophysical data. An additional \$42,000 is sought for necessary pay.

PROGRAM - Since 1890, the SAO has pursued a broad program of astrophysical research, placing particular emphasis on those programs that promise to achieve scientific leadership for the Observatory and those programs which support National goals. Beginning with its pioneer studies of the relationship between solar energy and the terrestrial environment, SAO has remained at the forefront of modern astronomy, with interests ranging from cosmic energy sources to the solar system to the earth itself.

SAO's facilities include its headquarters and laboratories at Cambridge, Massachusetts; a multipurpose observatory on Mt. Hopkins in Arizona; a world-wide network of associated astrophysical field stations which observe artificial satellites, comets, and other celestial objects; and a network of automatic stations in the midwestern United States which photograph meteors.

During the past decade, the Observatory played a major role in the astronomical revolution that has changed man's understanding of the universe. Technological advancements have produced more sensitive instruments and improved the effectiveness of

telescopes, providing a capability of observing more distant objects and cosmological events that took place tens of millions of years ago. Balloons, rockets, and satellites have provided a means of placing telescopes above the earth's turbid atmosphere, opening new windows for observing different radiation from the universe - gamma-rays, x-rays, ultraviolet light, and far infrared radiation.

A few of the highlights of SAO research follow:

FY 1973

- Publication of the Telescope Catalog of Ultraviolet Stellar Observations containing the results of the SAO experiment aboard the Orbiting Astronomical Observatory (OAO-2).
- Detection of new structural features in the African rift system based on images provided by the Earth Resources Technology Satellite (ERTS).
- Analysis of lunar samples returned by the Apollo and Soviet lunar missions.
- Detection of HD in the atmosphere of Jupiter and of inter-stellar lithium in the spectrum of Zeta Ophiuchi using the 60-inch telescope at Mt. Hopkins.
- Rediscovery of the asteroid Apollo last seen 41 years ago.
- Observation by radio astronomy of the interstellar molecules silicon monoxide (SiO), cyanoacetylene (HC₃N), and sulfur monoxide (SO).

FY 1974

- Publication of Blanketed Model Atmospheres for Early-Type Stars, a companion volume to the previously published Telescope Catalog, representing an analysis of the Telescope data as applied to stellar theory.
- Publication of SAO Standard Earth III, the latest calculation of the earth's shape and size with respect to gravitational variation and a uniform network of geodetic positions.
- The first identification of a probable "black hole" in the constellation Cygnus.

FY 1975 Expected

- Publication of major results from Skylab experiments.
- Flight of a rocket probe experiment to test the equivalence principle of Einstein's Theory of Relativity.
- Preparation of x-ray observation packages for the HEAOS satellites.
- Preparation of a spacecraft-to-spacecraft doppler tracking experiment for the Apollo-Soyuz space mission.

This extended view into deep space has overthrown the old concept of an "empty" universe. Indeed, no longer is the universe viewed as an unchanging, or at best slowly changing, cosmos of fixed stars. Instead, it is seen as a high energy explosive universe filled with objects defying imagination: exploding galaxies, pulsars, x-ray and gamma-ray stars, black holes, and neutrinos. Most exciting perhaps are the

massive interstellar clouds of dust particles and complex molecules. Some of these clouds apparently are coalescing to form new stars much like our own sun. Still others seem to be collapsing inward to create black holes, those incredibly dense objects with a gravitational pull so great not even light can escape.---In short, modern astronomers now may be seeing, on one hand, how the universe began, and on the other, how it may end.

Clearly, the discoveries and advances made in astronomy during the past decade have been revolutionary, but the implications for the future are even greater and most surely will affect all aspects of human life, from genetics to energy production. To meet the challenges of the future and to increase SAO's effectiveness in this regard, the Smithsonian, along with Harvard University, created a new joint Center for Astrophysics in FY 1974. Under a single director, the Center has a unified program involving about 120 scientists at SAO and Harvard College Observatory. In order to meet more effectively the scientific needs at the working level, eight associate directors are charged with organizing and directing the research effort in eight broad areas: planetary sciences, high energy astrophysics, solar and stellar physics, atomic and molecular physics, geoastronomy, optical and infrared astronomy, radio astronomy, and theoretical astrophysics.

During FY 1974, the Smithsonian Astrophysical Observatory, under its new director, has been engaged in a critical study of SAO's programs. Unproductive programs are being phased out and new programs are being planned which will most effectively utilize the specific capabilities of the Observatory. A number of key personnel were added in FY 1974 in high energy astrophysics and theoretical astrophysics. The final result of this process will be increased effectiveness, through more efficient deployment of limited resources.

JUSTIFICATION OF \$202,000 INCREASE - It is too early to predict the scientific expenditures which will be required to exploit properly the dramatic new opportunities described earlier. Therefore, SAO is not requesting any increase in FY 1975 for scientific programs. During this period of self-examination, however, it has become apparent that there are insufficient resources at SAO to sustain the core, Federally-supported scientific program which is under way at present. Hence, the Observatory seeks those resources required (1) to strengthen support and administrative functions in the interest of greater effectiveness; and (2) to bolster the capabilities of SAO for computational analysis, and thereby achieve greater efficiency.

In order to meet the scientific challenges of the early years of the past decade, SAO's Federal resources have had to be used to develop and maintain a corps of outstanding professional scientific and engineering talent for long-range research program development and continuity. Support of specific research projects, including the funding of support personnel in a wide variety of technical and administrative capacities, however, was predominately from grants and contracts. More recently, the mix of non-Federal and Federal resources has been undergoing dramatic changes. In FY 1967, non-Federal dollar resources constituted 82 percent of the total resources available to the Observatory. In FY 1974, this percentage has dropped to 61 percent. In part this change has been brought about by a de-emphasis of the Nation's space program (SAO's primary source of grants and contracts). But it has also been a product of more intensive development of SAO's own research interests and its choice of important scientific studies and facilities. A notable example is the development of the Mt. Hopkins Observatory with its array of specialized data-gathering equipment. This includes the multiple mirror telescope now being fabricated for operational use, beginning in FY 1976. These shifts of funding ratios and research developments now require that the Observatory develop a continuing and

strengthened support personnel capability for its Federally funded research. Trained and capable administrative and technical personnel now employed on temporary grant and contract work at SAO are available for long-term assignment to serve the basic responsibilities of the Observatory. SAO proposes to transfer 10 of these valuable employees to its Federal employment in FY 1975. These positions include: two positions (an editor and offset press operator) and \$31,000 to serve the preparation and printing of research publications; two positions (a field manager and supervisor) and \$46,000 for facilities management at the Mt. Hopkins Observatory; five positions and \$73,000 for general administration with emphasis on personnel, procurement, and financial management of research activity; and one position and \$27,000 for mathematical applications of data processing of astrophysical information. An additional \$25,000 is required for the purchase of computer time. This is a first significant step to provide adequate support personnel for important Federally-funded research programs.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

1973 Actual.....\$ 939,000
 1974 Estimate.....\$ 979,000
 1975 Estimate.....\$1,108,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	58	5	63
11 Personnel Compensation.....	696	70	766
12 Personnel Benefits.....	59	7	66
21 Travel & Trans. of Persons..	35	4	39
22 Transportation of Things....	5	1	6
23 Rent, Comm. & Utilities.....	45	6	51
25 Other Services.....	48	19	67
26 Supplies and Materials.....	70	8	78
31 Equipment.....	21	14	35
TOTAL	979	129	1,108
<u>Analysis of Increase</u>			
Necessary Pay.....		34	
Support Funds.....		95	

ABSTRACT - The Smithsonian Tropical Research Institute (STRI), a research organization devoted to the study and support of tropical biology, education, and conservation, focuses broadly on the evolution of patterns of behavior and ecological adaptations. The tropics offer a rich natural laboratory for these purposes. Panama further offers its unique zoogeographic characteristics--landbridge to terrestrial life forms of two continents and water barrier to marine life of two oceans.

For FY 1975, five additional positions and increased funding of \$95,000 is sought to provide the following types of support: (1) Buildings and Facilities Management - a facilities engineer, a janitor/night watchman, and 2 game wardens for the care and protection of buildings and property (\$34,000) and funds for building custodial and maintenance services, supplies, utilities, and maintenance and operation of vehicles and boats (\$51,000) and (2) Public Orientation and Education - a docent or guide (\$10,000) for public use of STRI's natural areas. An amount of \$34,000 also is required for necessary pay.

PROGRAM - The Institute provides a base of operations and an intellectual center for advanced studies of ecology, behavior, and evolution in the tropics. Because of the diversity of tropical organisms and the complexity of their relationships, the tropics represent one of the most interesting but most poorly understood biological regions of the world. Many of the developing nations lie in or along the tropics, and it is here that major environmental changes are likely to occur during the next decade. Understanding and properly managing tropical environments is essential to their preservation as well as the protection of living systems elsewhere in the world. For example, the destruction of suitable feeding sites in Central and South America may result in the extinction of migratory birds even if their breeding habitats are preserved in the United States.

STRI's laboratory complexes in Panama provide immediate access to tropical forest and marine environments. These include almost 9,000 acres of forest reserve of Barro Colorado Island and the adjacent peninsulas in Gatun Lake; the coral reef and lagoon at Galeta Point on the Atlantic Coast; and the rocky reefs at Naos Island on the Pacific Coast. A small facility in Cali, Colombia, provides access to high forest in the Andes. The Institute's scientific staff, as well as many visiting

scientists and students, conduct research in these areas as well as in other parts of Central and South America, the Pacific, Asia, and Africa, where comparative studies are clarifying the distinctive biological role of the tropics.

During FY 1974 the professional staff of STRI is 13, there are 10 long-term pre and post-doctoral students associated with STRI, and it is anticipated that the facilities will be used for shorter periods by a total of 459 visitors from all over the world. In 1973, 47 scientific papers were published in the world's leading scientific journals by staff and associates.

JUSTIFICATION OF \$95,000 INCREASE:

Buildings and Facilities Management (4 positions; \$85,000) - STRI's in-house research activities as well as its service to visiting researchers are accommodated in some 35 structures on Barro Colorado Island or provided by the Panama Canal Company, the Army, or the Navy at other sites. These structures require constant maintenance attention because of their age, type of construction, and rapid deterioration in the tropical climate. Renovation and repairs are accomplished by the use of staff maintenance personnel and the use of renovation funds but a large backlog of work exists. A facilities engineer (\$19,000) is required to plan corrective measures, negotiate with and monitor the work of contractors, and supervise in-house maintenance personnel. A janitor/night watchman (\$4,000) is related to the maintenance requirements as well as necessary after-hours protection of buildings.

For work in habitats away from its laboratories, STRI operates a fleet of small boats and canoes in Gatun Lake, a 42-foot vessel capable of extended trips in the marine environment, and several 4-wheel drive vehicles. Some of these were previously declared surplus by the military and are over 10 years old. An increase of \$12,000 is requested to initiate a replacement program and to update repair facilities in order to keep this fleet operating efficiently with minimal fuel consumption.

Increased pressures are being put on conservation areas under STRI's protection. Guarding against trespassing for logging, recreation, poaching, and even agricultural purposes requires increased vigilance. Two additional game wardens (\$11,000) are needed to augment the present staff of two.

Additional support funding of \$39,000 is needed to meet the costs of additional requirements, but more particularly price increases, for service contracts, utilities, maintenance supplies, and equipment.

Public Orientation and Education (1 position; \$10,000) - Education at the STRI is mostly at the graduate level. Recently, the Institute has experimented with tours of Barro Colorado Island and the marine research facilities for college undergraduates, high school students, elementary school children, and community organizations. This public education has been a success and STRI feels that explaining the importance of the world's natural resources should become a permanent part of its program. This will require \$10,000 to employ a docent and purchase educational aids.

RADIATION BIOLOGY LABORATORY

1973 Actual.....\$1,326,000
 1974 Estimate.....\$1,426,000
 1975 Estimate.....\$1,492,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	48	2	50
11 Personnel Compensation.....	631	53	684
12 Personnel Benefits.....	53	5	58
21 Travel & Trans. of Persons...	12		12
22 Transportation of Things....	4		4
23 Rent, Comm. & Utilities.....	375		375
24 Printing and Reproduction...	5	5	10
25 Other Services.....	60	2	62
26 Supplies and Materials.....	75	1	76
31 Equipment.....	211		211
TOTAL	1,426	66	1,492
<u>Analysis of Increase</u>			
Necessary Pay.....		26	
Support Funds.....		40	

ABSTRACT - The Radiation Biology Laboratory (RBL) studies the influences of environmental factors--light, temperature, humidity, and atmospheric content--on plants in order to help understand their growth and development. An additional two positions (\$32,000) for data reduction, mathematical analysis, and graphic presentation of solar energy data are requested with \$8,000 support funds for computer time and printing of data. Necessary pay requirements for present staff amount to \$26,000.

PROGRAM - Light is a key controlling environmental factor for the development and growth of biological systems. The storage of solar radiation as chemical energy in photosynthesis is basic for all life on earth. However, the utilization of this energy is regulated by subtle changing signals of light quality, duration, and intensity. A primary objective of the Laboratory's efforts is to explain the influences of the various factors in the environment--light, temperature, humidity, and atmospheric content--on the growth and development cycles of plants and to characterize the mechanisms through which environmental signals eventually manifest their effects on the developmental processes in living organisms. This objective is accomplished by studying environmental influences on plant growth and development in the Laboratory under controlled conditions using biochemical, biophysical, and physiological techniques and then verifying the importance of these processes in nature by monitoring the natural, dynamic environment. Such programs of research by their very nature are long-term and require the concerted team efforts of many scientific disciplines. Disciplines represented at RBL include physiology, cytology, biochemistry, biophysics, physics, engineering, electron microscopy, and morphology.

The research of the Laboratory consists of three principal areas: (1) regulatory biology, (2) environmental biology, and (3) carbon-14 dating. From the initial charge that it be concerned with the effects of the sun's energy on earth's life, a major portion of the RBL's program has been devoted to the study of the responses of living organisms to various qualities and intensities of radiant energy.

Since its inception in 1928, the Laboratory has pioneered research on the influences of the spectral quality of visible light on plant growth and development.

The present experimental program is of greater scope than in any other single laboratory in the country and perhaps in the world. The Laboratory has been credited with major contributions in the field of photobiology.

JUSTIFICATION OF \$40,000 INCREASE (Automatic Data Processing) - A significant deficiency exists in the environmental biology program, a research area of major emphasis that is primarily concerned with the measurement of solar radiation at the earth's surface that contributes to the existence and growth of living systems. Data has been collected and recorded at RBL monitoring stations (stations are now in Rockville, Maryland, Israel, Alaska, and Panama) from 1968 for daily periods from sunrise to sunset at three-minute intervals, measuring total energy and also recording energy in the spectral quality wavelengths that influence biological systems. There have been increasingly greater demands from the scientific community for specific data, as well as for the accumulated data on solar energy for the past five years because of the current international focus on the present and future importance of solar energy. In order for the mass of information to be made available and useful to workers in energy conversion fields and for meteorological and agricultural purposes, it must be analyzed and presented in tabular and graphical form.

In addition to collecting measurements in broadband wavelengths of blue, yellow, red, and ultraviolet light--those regions that influence life processes--RBL is now able to monitor the narrowband ultraviolet that is of particular interest in the health sciences. There is, for instance, an increasing interest in the study of changes in ultraviolet as associated with skin cancer frequencies. A new, sensitive scanning radiometer for measuring the distribution of energy in the narrowband ultraviolet has been developed in this laboratory, and data is being recorded. This information also must be processed and be disseminated. The RBL has no one on its staff to accomplish this work.

Two mathematicians (\$32,000), plus \$3,000 for supplies and computer time (at \$86.00 per hour) are needed for reduction, analysis, and graphical presentation of the solar energy data. After reduction and plotting, the data must be published (\$5,000). Initially, daily totals of incident energy, daily totals for each color-band measured, and intercomparisons of energy recorded at stations in three latitudes will be made available to scientists and others interested in the information.

OFFICE OF ENVIRONMENTAL SCIENCE

1973 Actual.....\$716,000
 1974 Estimate.....\$781,000
 1975 Estimate.....\$800,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	35	0	35
11 Personnel Compensation.....	572	18	590
12 Personnel Benefits.....	49	1	50
21 Travel & Trans. of Persons..	26		26
22 Transportation of Things....	3		3
23 Rent, Comm. & Utilities.....	36		36
24 Printing and Reproduction...	7		7
25 Other Services.....	28		28
26 Supplies and Materials.....	33		33
31 Equipment.....	27		27
TOTAL	781	19	800
<u>Analysis of Increase</u>			
Necessary Pay.....		19	
Program Funds.....		0	

ABSTRACT - The Office of Environmental Sciences (OES) undertakes or coordinates research on the environment for improved understanding of natural systems which can be applied to policies to reduce or stabilize degradation of natural resources. On-going service and support activities include the Center for Short-Lived Phenomena and Oceanographic Sorting Centers in Washington and Tunis. No program fund increase is sought for FY 1975. A pay increase amount of \$19,000 is needed for presently authorized staff.

PROGRAM - Several research projects dealing with selected aspects of ecosystems are in progress supported by Federal agency contracts. A four-year study of water-borne diseases in the Lower Mekong River is nearing completion. A post-impoundment ecological analysis of the reservoir on the Nam Ngum River, a Mekong tributary, will provide valuable insights into the probable ecological impact of the world's largest dam which is planned at Pa Mong, northeast of Vientiane, Laos. Other OES studies involve man-made lakes in South India and Ghana, oil spills in Indonesia, pollution of natural lakes in Yugoslavia and Tunisia, and impact on biota of environmentally hazardous pollutants flowing into the Caspian Sea.

Environmental research concerned with marine pollution, ocean dumping, pollutant monitoring, and environmental prediction will be continued at the Oceanographic Sorting Centers in Washington and Tunis, supporting the accelerated United States programs in marine and freshwater baseline monitoring. These increased Federal environmental activities necessitated an increase of bulk aquatic collections to provide a reserve of ecological baseline material for environmental assay and systematics research. The two Oceanographic Sorting Centers supply roughly 350 scientists from 200 agencies around the world with curatorial support, sampling design, biological analysis, and data management in addition to sorted specimens that are required to assess environmental impact on living species.

The OES is developing a new program of international ecological studies with special emphasis on research in tropical biological systems. The effort will be dedicated to producing a predictive capability in systems ecology applied to the use

of natural resources in the tropics, their degradation, and necessary steps to preserve or restore. A sense of urgency accompanies these studies since shortages of energy and raw materials will accelerate the exploitation of both renewable and non-renewable resources. This exploitation may cause alteration of vast undisturbed ecological systems of immense significance.

The Center for Short-Lived Phenomena operates a global environmental alert network for rapid communication of scientific data on biological and geological environmental events of short duration to scientists and officials with monitoring responsibilities. The Center's reports make it possible for scientists to conduct research while short duration events are occurring. The Center's unique capability has led the United Nations Environmental Program to request its help in organizing Earthwatch, the new UN worldwide environmental monitoring program. The first world directory of environmental monitoring organizations was compiled by the Center under a UN contract, and with UN encouragement it is now organizing a global student environmental monitoring network.

OFFICE OF INTERNATIONAL ACTIVITIES

1973 Actual.....\$178,000
 1974 Estimate.....\$197,000
 1975 Estimate.....\$204,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	11	0	11
11 Personnel Compensation.....	172	6	178
12 Personnel Benefits.....	14	1	15
21 Travel & Trans. of Persons..	6		6
23 Rent, Comm. & Utilities.....	2		2
25 Other Services.....	2		2
31 Equipment.....	1		1
TOTAL	197	7	204
<u>Analysis of Increase</u>			
Necessary Pay.....		7	
Program Funds.....		0	

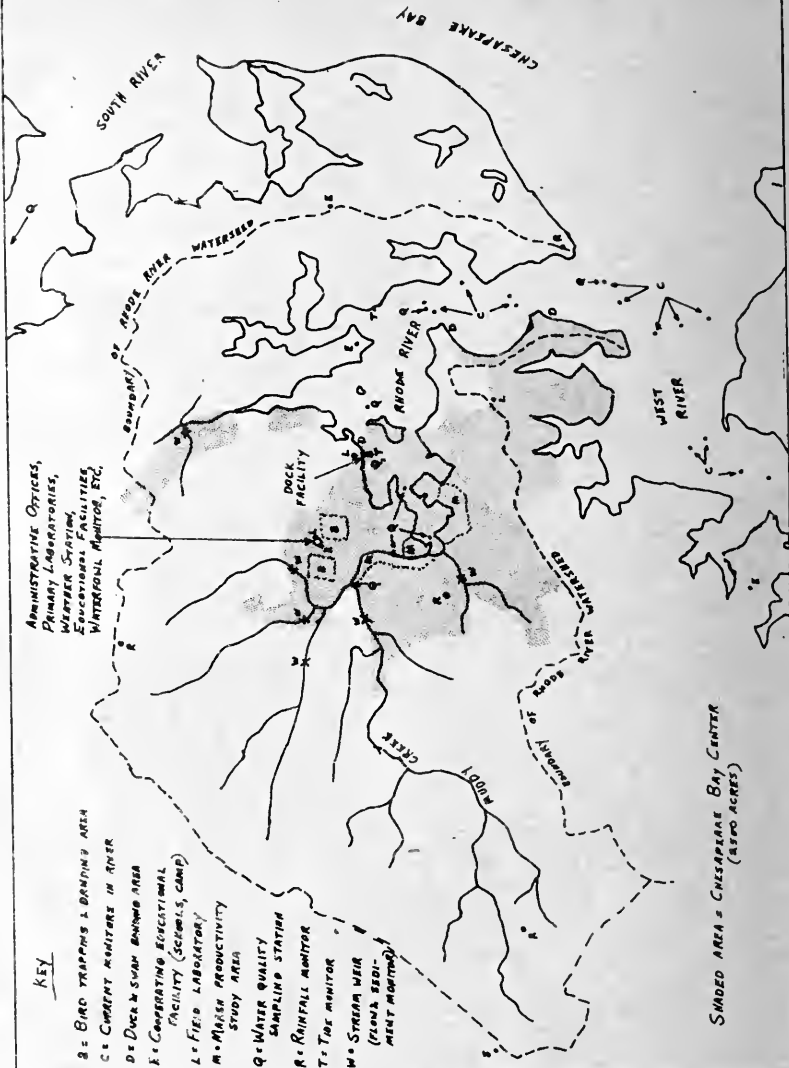
ABSTRACT - This office fosters and coordinates the Institution's scientific and cultural activities abroad and administers the Smithsonian's Foreign Currency Program. No program increase is sought for FY 1975. Funds in the amount of \$7,000 are requested for necessary pay for existing staff.

PROGRAM - The Office of International Activities was established in 1965 to foster and coordinate the Smithsonian's scientific and cultural activities abroad. To this end, it is the Institution's point of liaison with the Department of State and diplomatic missions in Washington and with foreign governments and research institutions abroad.

Of special importance are efforts to foster Smithsonian scientific and cultural exchanges with the People's Republic of China and the Soviet Union. The office continues to support the Institution's world-wide environmental and conservation programs and the exchange of scholars and technicians as well as of cultural and scientific objects, information, exhibits, and the like in the interests of basic research and public education.

The office also administers the Smithsonian's Foreign Currency Program. This program of grants to United States institutions supports museum programs, scientific and cultural research, and related educational activities in eight countries where the United States owns local currencies in excess of its needs as determined by the Treasury Department. More than 220 such institutions in 32 states have benefited from the program. An appropriation of \$4.5 million equivalent in "excess" foreign currencies is requested for fiscal year 1975. (See page B-1.)

PRINCIPAL RESEARCH SITES OF THE CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES



CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES

1973 Actual.....	\$236,000
1974 Estimate.....	\$244,000
1975 Estimate.....	\$415,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	15	6	21
11 Personnel Compensation.....	164	76	240
12 Personnel Benefits.....	14	7	21
21 Travel & Trans. of Persons..	6	4	10
23 Rent, Comm. & Utilities.....	15	20	35
25 Other Services.....	26	19	45
26 Supplies and Materials.....	8	27	35
31 Equipment.....	11	18	29
TOTAL	244	171	415
<u>Analysis of Increase</u>			
Necessary Pay.....		9	
Support Funds.....		162	

ABSTRACT - The Chesapeake Bay Center for Environmental Studies (CBCES) is a natural area for research in complex land-water relationships and for use in creating public awareness and understanding of ecological systems as they may be affected by economic and social change. The FY 1975 budget shows an increase of 6 positions and \$162,000 to provide the following support needs: (1) Public Orientation and Education - an environmental education program coordinator (\$22,000) to develop the Center's full potential for meeting public use and interest; (2) General Administration - an administrative assistant and a clerk-typist (\$25,000) to assist with office management and public use of the facility; (3) Buildings and Facilities Management - a maintenance worker and a custodian (\$18,000) and an additional \$84,000 for general care of the Center's property; and (4) Protection - an assistant resident manager (\$13,000) for protection of property. An additional amount of \$9,000 is needed for necessary pay.

PROGRAM - The Chesapeake Bay Center is a 2,500 acre area located on the Chesapeake Bay, seven miles south of Annapolis, Maryland, about equidistant from Baltimore and Washington. It was established in 1965 for the purpose of creating scientific and education programs in the environmental sciences leading to a more complete understanding of complex natural relationships and the proper balance of land-water uses as they relate to human health, welfare, and continued existence of life. The development of these programs was made possible by the acquisition (with non-appropriated funds) of a land-water unit large enough to include the full range of forests, marshes, fields, and agricultural areas that, taken together, form the mosaic of land uses characteristic of the mid-Atlantic region since settlement. The area is ideal for study of the results of man's past and present activities as vital components of interacting physical and biological systems. Thus, the Center now provides a living museum of contemporary and historical significance, a primary resource for both teaching and research on complex living systems, and the largest facility in the nation available for the study of land-water (estuarine) relationships.

The research program is being conducted in conjunction with other Federal agencies and nearby universities. It is interdisciplinary in approach and has been developed as a long-term effort to understand the functioning of local ecosystems.

The educational programs, designed to supplement and enrich the science curricula of participating school systems and to develop ecological awareness in people

of diverse ages and backgrounds, are expected to surpass research activities in emphasis in the next five years. This will be due (1) to the strategic location and unique nature of the Center, and (2) to the detailed understanding of the watershed-estuarine system available as a result of the research program. In no other area of the U.S. will it be possible to demonstrate the detailed functioning of such a system while simultaneously indicating the economic, social, and political implications of managing such a system. This aspect is of regional and national significance for both student training and general educational purposes, including information transfer activities. As a consequence of these facts, the educational programs carried out thus far, including ones of diverse character with groups of all ages but primarily ones involving students and teachers in school systems in Maryland, Virginia, and the District of Columbia, have proven to be highly successful.

JUSTIFICATION OF \$162,000 INCREASE - Much of the research and education work at the Center has been initiated and funded by a variety of short-term grants and contracts from government and private sources. This funding has enabled the CBCES to demonstrate the value of its natural resources. While the Center will continue to pursue such sources of funds for special projects, they do have certain limitations. They do not provide continuity for programs which have proved to be valuable. They place heavy demands on staff and other in-house administrative and maintenance resources.

Public Orientation and Education - Educational activities have fallen short of realizing their potential public service as a result of personnel shortages. The Center has found it necessary to curtail educational activities so that only about 2,500 participants were able to be included in calendar year 1973 as compared with a planned 3,000. There is a need for a full-time education specialist (\$22,000) to plan, conduct, and coordinate wider public use of the Center's resources.

General Administration - In addition to the permanent staff, the Center is now being used by 60 employees paid from grants and contracts, visiting researchers, and students doing projects, and some 2,500 participants in the education programs. Each of these people creates some additional administrative and clerical workload, which when added to the range of personnel actions, procurement, financial management, public inquiries, scientific correspondence, manuscript typing results in a total workload in excess of that which can be handled by the office management staff of three persons. An administrative assistant and a clerk-typist (\$21,000) are required. Additional travel funds are required to enable the professional staff to review allied scientific programs and to give technical advice and consultation on the work of the Center (\$4,000).

Buildings and Facilities Management - Twenty-five hundred acres, a range of old buildings (originally farm buildings) and trailers, and active use of the Center creates a daily demand and range of custodial and maintenance work beyond the capabilities of the present staff of six persons and their available funds. One additional maintenance worker and a custodian are required (\$18,000). The requirements for utilities; maintenance contracts, supplies, and materials; boat and vehicle operations; and equipment (including the replacement of worn-out items) will cost an additional \$84,000.

Protection - The value of the Center depends totally on being able to maintain it in its presently diverse state. There is a continuing threat of damage from vandalism, fire (man-made or naturally caused), or poaching. Protection at present is a responsibility of all employees. There is one full-time security guard. An additional resident manager position (\$13,000) is requested to improve protection especially at night.

NATIONAL AIR AND SPACE MUSEUM

1973 Actual.....\$1,063,000
 1974 Estimate.....\$2,561,000
 1975 Estimate.....\$4,063,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	<u>114</u>	<u>23</u>	<u>137</u>
11 Personnel Compensation.....	1,676	283	1,959
12 Personnel Benefits.....	142	25	167
21 Travel & Trans. of Persons..	23		23
22 Transportation of Things....	6		6
23 Rent, Comm. & Utilities.....	2	134	136
24 Printing and Reproduction...	36	10	46
25 Other Services.....	407	902	1,309
26 Supplies and Materials.....	122	145	267
31 Equipment.....	<u>147</u>	<u>3</u>	<u>150</u>
TOTAL	<u>2,561</u>	<u>1,502</u>	<u>4,063</u>

Analysis of Increase

Necessary Pay.....	61
Other Uncontrollable.....	134
Program and Support Funds.....	<u>1,307</u>

ABSTRACT - The National Air and Space Museum (NASM) was created to memorialize the national development of aviation and space flight; collect, preserve, and display aeronautical and space flight equipment of historical significance; and serve as repository for documentary materials. An increase of \$1,307,000 and 23 positions is requested to continue preparation for the move of the NASM into its new building. Specifically, these increases are: (1) Curation of Exhibits - 5 positions (\$65,000) and support funds (\$63,000) to extend curatorial expertise and to prepare exhibit scripts, catalogues, and related materials; (2) Preservation and Restoration - 8 positions (\$60,000) and support funds (\$40,000) to continue work on the air and space craft to be used in the opening exhibition; (3) Presentations and Education - 2 positions (\$27,000) and support funds (\$68,000) to prepare shows for the spacearium/planetarium; (4) Exhibits production - 7 positions (\$86,000) and support funds (\$879,000) to step up exhibits production; (5) Administration - One position (\$9,000) to assist with the clerical workload; (6) Printing and Reproduction - Printing funds (\$10,000) to help finance exhibit catalogues. Necessary pay in the amount of \$61,000 is being sought as well as \$134,000 space rental in the Uncontrollable section of the estimates (see page A-6).

PROGRAM - The Smithsonian's appropriation act for FY 1973 provided \$40 million in construction authority for a new (but empty) NASM Building. This building which is now under construction is scheduled to open on July 4, 1976, as a major Bicentennial attraction. Construction is on schedule. The building will contain approximately 200,000 square feet of exhibits space. Twenty-five major exhibition halls are being planned for the new structure.

The NASM has spent the last two years building staff; creating prototype exhibits using a blend of the best museum practices with new audio-visual and mechanical visitor participation and involvement concepts; restoring air and spacecraft for display; and overseeing the construction of the building.

JUSTIFICATION OF \$1,307,000 INCREASE - All current efforts, as well as required new resources, must be pointed toward the realization of a successful opening

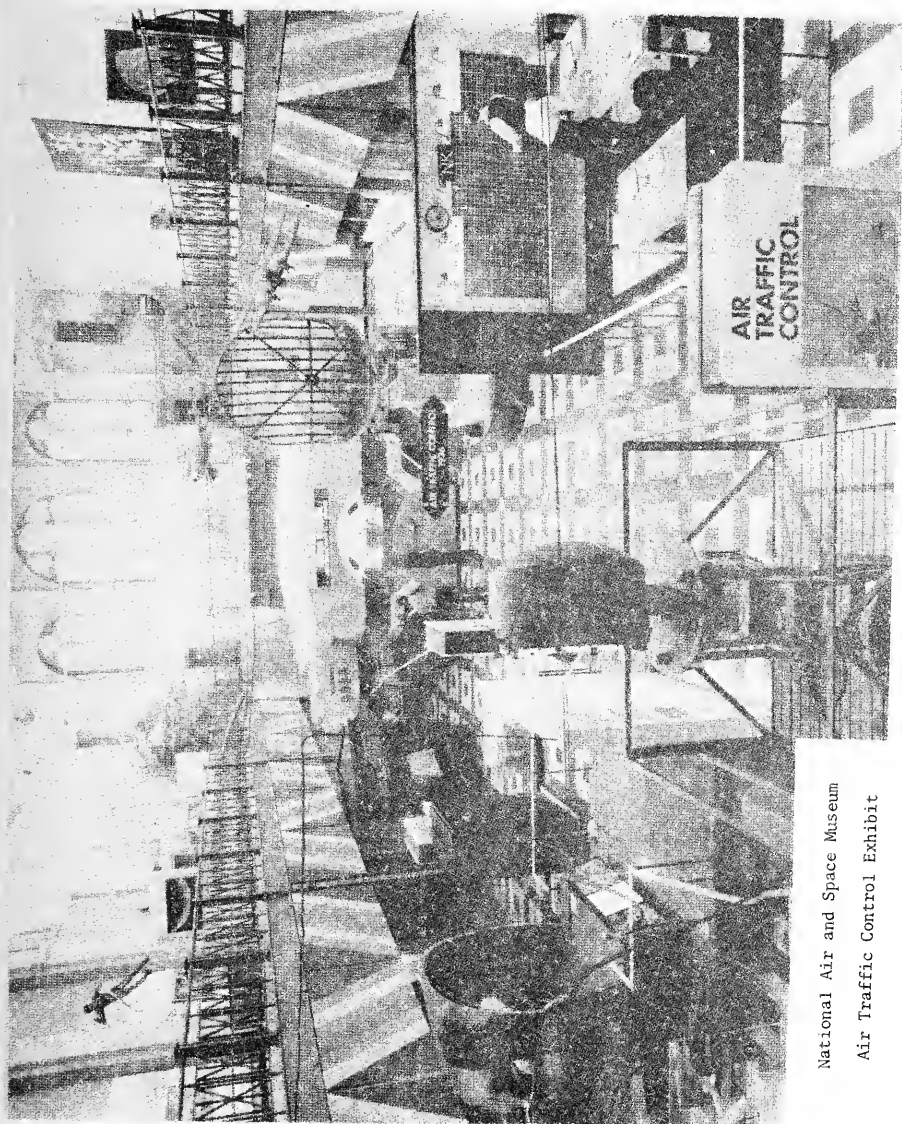
befitting the new museum building. This requires research in the history, theories, techniques, accomplishments, and potential of air and space flight in order to present exhibits that are accurate, educational, and dynamic. Many additional air and spacecraft now in storage at the Silver Hill, Maryland, facility must be restored for display. Specifically the increase is requested for:

Curation of Exhibits - Five additional curators and research assistants (\$65,000) must be employed to increase curatorial input relative to the preparation of exhibit scripts. Additional funding for research materials, services, and equipment is needed (\$63,000). There are presently 14 curators and research assistants to plan, research, and write comprehensive and well documented scripts for planned exhibits, covering the factual and educational material and objects that will be presented to the museum visitor. Curators are present at each stage of the exhibit's design, production, and installation to assure its quality and authenticity. During FY 1975 ten major exhibit halls must be in stages of planning, design, and production in order to meet opening date deadlines. A curator for general aviation and one for aeronautical transportation are requested for the department of aeronautics. A curator for manned and unmanned satellites and one for launch vehicles and guided missiles are requested for the department of astronautics. A curator for technology applications and utilizations is requested for the department of science and technology.

Preservation and Restoration - Eight additional skilled craftsmen and helpers are needed (\$60,000) with funding (\$40,000) for supplies and materials and equipment to assist with the preservation and restoration of aircraft and spacecraft. There are 60 air or spacecraft in need of restoration and/or preservation in order to be placed on public view. Of these 60 craft in need of work, 20 have already been completed. The average craft takes 2 man-years of work to be put in exhibitable condition. Additional staff (museum aids and technicians) are required to complete work for the opening exhibit. These employees also are responsible for moving and placing of air and spacecraft on display and for the receipt, storage, and cleaning of artifacts. The current staff of 31 at Silver Hill includes 15 craftsmen who will be able to restore 8 craft in FY 1974 and another 8 in FY 1975. The additional positions will allow an additional 11 air and spacecraft to be partially restored and will strengthen other collections management efforts.

Presentations and Education Division - The new building will have a spacearium/planetarium and an auditorium with wide-screen presentations. A writer-producer and planetarium technician (\$27,000) are requested to assist the present staff of 6 in the preparation of planetarium shows. Funds also are requested for the purchase of special astronomical projection devices (\$68,000). When fully operational, four or five different shows will be presented each year. The working titles for some of these showings are: "Cosmic Journey," "Starship Earth," "Stardust," "Empire of the Stars," and "Man Beholds the Heavens."

Exhibits Production - All 25 exhibition halls will have objects on display when the Museum opens to the public. An essential goal for the opening date, however, is to have at least half of the halls well equipped with permanent exhibitions which are worthy of the new structure and deserving of public interest. The balance of the halls will be completed as quickly as possible after the opening date. In order to help achieve these goals, exhibits personnel and other resources have been transferred to NASM from the Office of Exhibits Programs (now Office of Exhibits Central). This reorganization will result in more effective application of existing resources. About 40 exhibits specialists are now available to NASM, but the need is much greater than can be met by this staff.



National Air and Space Museum
Air Traffic Control Exhibit

Currently only three of the components for the opening exhibition have been completed and tested in the Arts and Industries Building. Two more exhibitions will be tested in FY 1974 and another four in FY 1975. In total, less than three years remain for the development of the exhibits that will be offered to the anticipated seven million visitors expected during the first year. Space rental will be required for the completed exhibits being prepared prior to the building's completion. Rental funds for this space are in the Uncontrollable Section of the budget.

Seven additional exhibits personnel (\$86,000) (two designers, an audio-visual writer and a technician, two carpenters, and a laborer) and support funds (\$879,000) are requested. The support funds are for other services, supplies and materials, and equipment.

Administration - An additional clerk-typist (\$9,000) is required to assist with the increase in clerical tasks in the museum.

Printing and Reproduction - Seven exhibit catalogues are being planned as educational adjuncts to new halls. In addition, a new series "Smithsonian Studies in Air and Space" is being planned. The first two volumes of this series are expected to be ready for publication by FY 1975. Funds of \$10,000 are requested to help finance printing costs. The balance of costs will be financed by resources in the Press currently available for Printing.

The following list shows the 25 halls that are expected to be in the completed building. Titles are tentative but indicate the theme of the exhibit.

National Air and Space Museum
Major Exhibition Halls

Vertical Flight and Rotary Wing Flight	Life in the Universe
Air Transportation	Satellites and Space Probes
Earliest Birds	Earthbound Benefits From Flight
Kitty Hawk Flyer	Sea-Air Operations
Index Exhibit	Understanding Air and Space
Large Space Vehicles	Technology and Materials
History and Technology of Spaceflight	World War II Aviation
General Aviation	Lighter Than Air
Exhibition Flight	World War I Aviation
Air Traffic Control and Navigation	Significant Aircraft and Spacecraft
Earth Flight Environment	The X Airplanes
Trophy Hall	Flight to the Moon
Space Flight Environment	Air and Space in the Arts

CENTER FOR THE STUDY OF MAN

1973 Actual.....\$271,000
 1974 Estimate.....\$296,000
 1975 Estimate.....\$304,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	14	0	14
11 Personnel Compensation.....	230	7	237
12 Personnel Benefits.....	19	1	20
21 Travel & Trans. of Persons..	12		12
23 Rent, Comm. & Utilities.....	3		3
24 Printing and Reproduction...	1		1
25 Other Services.....	25		25
26 Supplies and Materials.....	1		1
31 Equipment.....	5		5
TOTAL	296	8	304
<u>Analysis of Increase</u>			
Necessary Pay.....		8	
Program Funds.....		0	

ABSTRACT - The Center for the Study of Man (CSM) has several anthropological programs: development of the Encyclopedia of North American Indians; sponsorship of an urgent anthropology program; coordination of international anthropological efforts on current social problems; and conduct of an immigration and ethnic studies program. No program funding increase is sought for FY 1975; an amount of \$8,000 is needed for necessary pay.

PROGRAM - The Center for the Study of Man coordinates research and development on a series of important anthropological programs. The American Indian Program is presently concerned primarily with the development of the 20 volume Encyclopedia of North American Indians to be published for the Bicentennial. It will contain 1,000 articles. This is the major effort of the staff and other resources of the Center. Forty percent of the manuscripts are now complete and the development of design and specifications for printing is well along. Funds for the actual printing of the Encyclopedia are contained in the Bicentennial budget request.

Another aspect of the American Indian Program is the development of a system for providing scholarly educational materials concerning Indians to individuals, schools, and Indian communities. In addition, the Center helps to coordinate educational intercommunication among Indians themselves, with scholars, and with appropriate government and private agencies.

As work on the Encyclopedia progresses, it becomes increasingly clear that there are dangerous gaps in the knowledge of North American Indian cultures. In particular, there is a pressing need to interview within the next few years the tribal elders who are anxious to fill in the record of their proud past. The Urgent Anthropology Program which identifies, publicizes, and finances, by means of small awards, needed research in geographical areas that are undergoing rapid environmental change as a result of urbanization, improved communications, better transportation, and other factors has been helpful in this respect. Its objective is to salvage and preserve information in selected rapidly changing areas before time and events erase our ability to understand the cultures that existed.

The Cross-Cultural Research Program is coordinating the efforts of numerous anthropologists and other human scientists in developing new, comparative information on population, environmental, and educational studies. Comparative research on world use of cannabis and alcohol has also been carried out.

The comparative Immigrant and Ethnic Studies Program, initially funded through temporary grant funds, is carrying out basic research in the United States, Canada, the circum-Caribbean area, and the Panama Canal Zone. It investigates the special conditions which stimulate immigration, assesses the contributions made by immigrants, and studies the effects of immigration on the source country and on the target country. Field research, archival research, and statistical methods are all used.

In response to requests from a number of Federal agencies (National Science Foundation, National Endowment for Humanities, National Institutes of Health, etc.) and from other concerned organizations and individuals, the Center is establishing a National Ethnographic Film Center and Archive. The purpose of this unit will be to record, collect, and preserve the cultures of North American Indians and other peoples as recorded on film. Much of the film which will be collected is in great danger of destruction and the need for immediate action is clear. Initial funding for this program will be from outside sources.

NATIONAL ZOOLOGICAL PARK

1973 Actual.....\$4,074,000
 1974 Estimate.....\$4,654,000
 1975 Estimate.....\$5,115,000

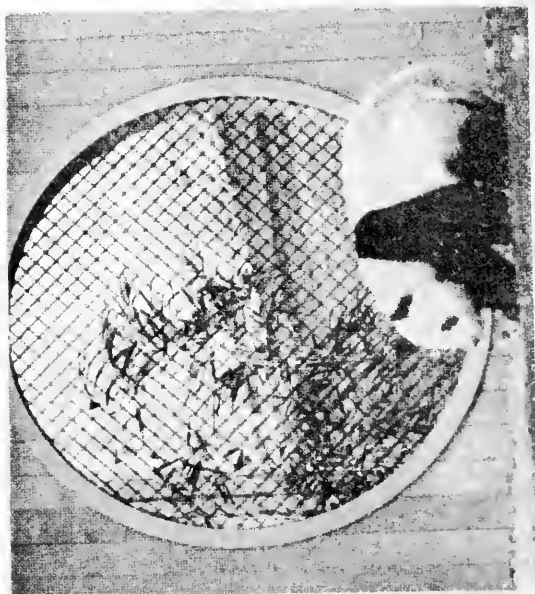
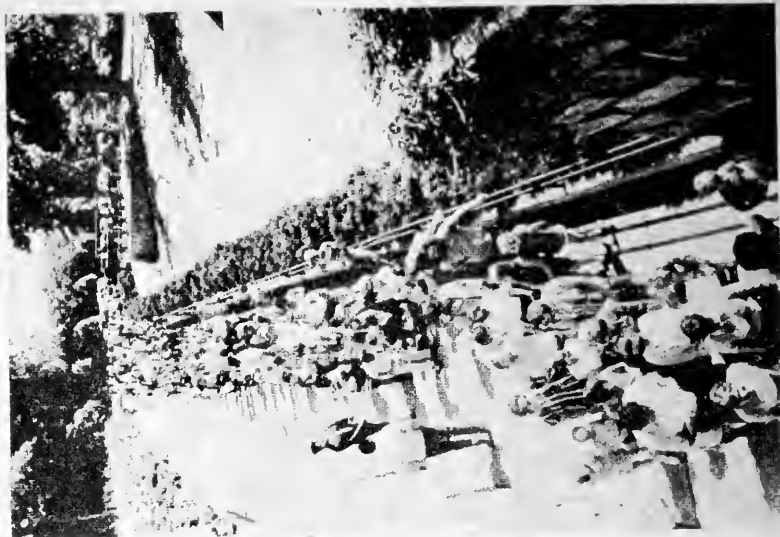
(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	286	20	306
11 Personnel Compensation.....	3,239	320	3,559
12 Personnel Benefits.....	315	28	343
21 Travel & Trans. of Persons..	22		22
22 Transportation of Things....	5		5
23 Rent, Comm. & Utilities.....	145	20	165
24 Printing and Reproduction...	10		10
25 Other Services.....	260	23	283
26 Supplies and Materials.....	471	49	520
31 Equipment.....	186	21	207
41 Grants.....	1		1
TOTAL	4,654	461	5,115
<u>Analysis of Increase</u>			
Necessary Pay.....		186	
Support Funds.....		275	

ABSTRACT - The National Zoological Park (NZP), located on 156 acres in Rock Creek Valley, exhibits a large and varied animal collection, serves the information and education needs of the public, and promotes scientific research on animal health and conservation. Budgetary requirements for FY 1975 include an additional 20 positions and \$275,000 to serve the following support functions: (1) Buildings and Facilities Management - a planner/estimator, six general maintenance helpers, and 11 custodial supervisors and workers (\$142,000) and maintenance funds (\$108,000); and (2) Protection - one paramedic and one policeman (\$20,000) and health and safety materials and equipment (\$5,000). A further amount of \$186,000 is needed for necessary pay for present staff.

PROGRAM - The National Zoological Park was established in 1889 for the "advancement of science and the instruction and recreation of the people." To accomplish this mission, the Zoo exhibits a broad variety of animals representing one of the most important collections of exotic animals in existence, maintains information and education programs for the visiting public from all over the United States, and promotes scientific research, including biomedical programs, for increased scientific knowledge and for the health of the animals. Visitors increased in number from 4,996,207 in 1971 to 5,953,748 in 1973 and will surge forward again as they celebrate the births of rare and fascinating animals and move toward celebrating the birth of the nation.

Resource planning for the National Zoological Park is dominated by one need--support growth must accelerate to catch up and keep pace with the Zoo's expanding responsibilities to the animals it hosts and to the growing public it serves.

In earlier years a typical zoo put an animal in a bare cell, fed it, and when it died (as often happened), replenished it from the wild. Now a responsible zoo must seek to employ the animal as an educational resource, provide for its psychological and physiological needs, protect its gene pool through selective breeding programs as its number and its wilds vanish, sustain it in good health for a full and useful life demonstrating to man the character and worth of its own kind. The National Zoo must lead in this mission.



Pandas introduced one million more visitors to the experience and educational resources of the National Zoo (4,900,000 per year before, 6,000,000 per year now).

Such improved quality of care and education demands parallel efforts--thoughtful execution of the approved Master Plan (described elsewhere in this budget) so that the National Zoo can perform its responsibilities for modern animal and public accommodation, as it maintains its leadership in animal care and research; and successful care and operation of its current active and heavily visited facilities. This effort requires continued teamwork within the Zoo in applying new knowledge from a number of fronts, creative and responsible animal management, successful educational approaches, balanced growth and training of staff and volunteers, facilities management know-how, new and effective nutrition programs, responsive animal health and pathology, refined reproductive strategies, research on-site and in the field, and space to accomplish the above. For the National Zoo all these critical capabilities are at hand, but for their effective application, funding gaps must be closed. Simple but harsh shortages in labor, though good manpower is readily available, and escalation in material costs are the two critical problems that this request addresses. Without meeting these needs the Zoo can only lose critical ground and, despite its capabilities, fall backward in serving the public and its responsibilities.

JUSTIFICATION OF \$275,000 INCREASE:

Buildings and Facilities Management - The request for 11 additional custodial, supervisory, and worker positions (\$79,000) is 2/3 of the minimum essential to sustain a park-wide public space cleaning program. The Zoo now has only 25 such positions for all public and work spaces in buildings and on the grounds. It must not compromise on the cleanliness of public space. Currently animal keepers and other professionals, whose time and energies the animal programs increasingly demand, must leave their primary assignments to sweep and scrub public space. This is totally unacceptable for any responsible public program let alone the Nation's Zoo.

The trade and crafts personnel of the Zoo tend its utilities, keep systems critical to animal health and public safety in repair, and perform service in a dozen varied areas of expertise including pipefitting, masonry, metalworking, boiler plant operations, welding, painting, carpentry, electrical work, refrigeration repair, and asphalt repair. The total staff of 60, including supervisory and clerical personnel, is seriously undermanned. Six general maintenance helpers (only one now is on staff) will help close the gap while receiving on-the-job training as a valuable method of providing and sustaining upward mobility--a practical solution, as well as an ethical one, since so many of these skills are unavailable on the labor market (\$50,000).

The requested planner/estimator (\$13,000) is an integral component needed to permit craftsmen-supervisors and work leaders to economize in manpower and material planning to accomplish the thousand-plus repair and improvement tasks faced yearly. The job should pay for itself in increased efficiency.

Protection - In normal circumstances a Zoo is a place demanding special concern for health and safety and capability to cope with emergencies. The volume of visitors using the National Zoo and the increase and complexity of staff operations and construction programs have outstripped present health services. A suitable first-aid area is now being readied. First-aid training of staff must be stepped up and kept current throughout the Park. First-aid kit centers must be monitored and improved. As construction programs increase in and around a heavily visited Zoo every precaution will be taken to assure safe separation of the public from building and construction staging, and for protection of Zoo staff and volunteers. But one emergency untended wipes out the best of future intentions. NZP Protective Services' health, safety, and monitoring capabilities must be strengthened with a trained paramedic and one more policeman (30 positions are now authorized). The additional cost will be \$20,000.

Miscellaneous Support - Non-personnel increases included in this request total \$113,000, constituting only a 10 percent spending increase in essential programs -- about that consumed by inflation. Animals must eat. Their manure must be hauled away. Shelters must be heated. Four-fifths of all the Zoo's other object class spending is fixed--the balance serves quality of public service and mission performance. With the increase requested all purchase programs must be maintained at the bare essential level in order to meet responsibilities.

SMITHSONIAN SCIENCE INFORMATION EXCHANGE

1973 Actual.....\$1,600,000
 1974 Estimate.....\$1,695,000
 1975 Estimate.....\$1,770,000

(Dollars in thousands)	Base FY 1974	Requested	Est. FY 1975
41 Grants.....	1,695	75	1,770
TOTAL	1,695	75	1,770
<u>Analysis of Increase</u>			
Necessary Pay.....		75	
Program Funds.....		0	

ABSTRACT - The Smithsonian Science Information Exchange (SSIE) serves as a national registry of research in progress covering all areas of basic and applied research supported by Federal or private organizations. Some 180,000 ongoing research projects are on file. The purpose of the Exchange is to help research managers and scientists learn of current research, avoid unnecessary duplication of work, and plan for new research programs. The SSIE is funded by a Federal contract with the Smithsonian and income from its users. For FY 1975 the Smithsonian is requesting an additional \$75,000 to permit the Exchange to meet comparability pay increases for its employees. No other increase to its appropriated funds is sought.

PROGRAM - The SSIE operates as the largest and most modern information system of its kind in the world. The Exchange is designed to collect, index, store, and retrieve information about ongoing research. The SSIE data base covers all areas of basic and applied research in the life, physical, behavioral, and engineering sciences conducted under the support of Federal as well as non-Federal organizations. Each year new information on about 100,000 ongoing research projects is incorporated into its computer data bank. Total data bank size averages 180,000 projects. Since 1950 the Exchange has provided services designed to help research program managers, administrators, and individual scientists avoid unwarranted duplication of research efforts, evaluate existing research efforts, and plan for new research programs. A number of similar systems have been developed in other countries, many of which have been patterned after the Exchange, but SSIE continues to maintain a technological advantage and serves as an example of what can be accomplished through steady improvements of its systems and customer services.

The Exchange not only provides information directly to users, but furnishes data to a number of specialized information centers as well. These centers provide information in a wide range of subject areas and cover both ongoing and completed research. They thus reach an even wider total audience than does the Exchange through its direct user service program. In addition, information contained in the Exchange's data base is used to prepare catalogues of ongoing work in specific areas such as Water Resources Research, Health Services Research, Aquatic Pest Control and Pesticide Residues in Aquatic Environment, and Dental Research. These catalogues are published by Federal agencies in increasing numbers and areas of interest. They make information available to large numbers of users on a significantly broader scale than is possible in response to individual information requests made to the Exchange. In FY 1974, the Exchange will provide more than a half million summaries of research in progress in response to requests, not including the information available to users from catalogues and the specialized information centers.

Among SSIE's unique features is its ability to provide prompt response to both broad and specific requests for information on a multidisciplinary basis, regardless of the source of support. The Exchange achieves uniformity of indexing by means of

well trained scientific staff and a well developed data processing system which utilizes the latest available computer equipment and technology.

The Exchange has made considerable progress in several areas which ultimately benefit its users. The most significant efforts have been those designed to improve the completeness and timeliness of information flowing into the data base. New techniques, such as computer assisted indexing, are being developed to reduce the time required for processing information into the system and allow more work to be accomplished at a faster rate without significant increases in personnel strength.

The present budget request of \$1,770,000 reflects a request for a \$75,000 increase over the FY 1974 estimate. These funds are intended to offset comparability salary increases and other personnel costs and benefits resulting primarily from the January and October 1973 pay raises. They do not represent an increase in cost for additional personnel or other increased operating expenses. These latter costs are expected to be met by increases in user revenues. Continuing their steady growth since charges for services were initiated in FY 1969, user revenue is estimated to be \$575,000 in FY 1975 as compared with a projected \$500,000 in FY 1974 and \$430,000 in FY 1973. Details of FY 1974 and FY 1975 budget are shown below.

Although it has not been possible within the funds available to mount a major campaign to increase use of the Exchange, efforts have continued to result in a steady growth of both users and user income. The need for and value of SSIE information to the scientific community of research investigators and administrators becomes increasingly clear as the Exchange continues to meet its role as the nation's primary source of information about ongoing research. By expanding its coverage and the range of services it offers, SSIE provides an important service for better management of research funds.

(\$1,000s)

SMITHSONIAN SCIENCE INFORMATION EXCHANGE, INC.
ESTIMATED BUDGETS FY 1974 - FY 1975

	FY 1974			FY 1975		
	Total	Federal Support	User Revenue	Total	Federal Support	User Revenue
Personnel						
Salaries.....	\$1,380	\$1,085	\$295	\$1,455	\$1,140	\$315.
Benefits.....	191	150	41	217	170	47
Contract Services						
Travel.....	13	6	7	12	6	6
Transportation of Things.	2	2		2	2	
Rents						
Telephone.....	9	8	1	10	8	2
Computer.....	242	204	38	271	204	67
Photocopying.....	10	8	2	10	8	2
Building.....	103	81	22	105	81	24
Other.....	16	5	11	10	5	5
Printing.....	35	3	32	35	3	32
Other Services						
Equipment Maintenance....	4	4		5	4	1
Other.....	32	18	14	41	18	23
Supplies.....	32	21	11	31	14	17
Equipment.....	1		1	11	7	4
TOTAL	2,070	1,595	475	2,215	1,670	545
SI Service.....	125	100	25	130	100	30
GRAND TOTAL	2,195	1,695	500	2,345	1,770	575

OFFICE OF THE ASSISTANT SECRETARY FOR HISTORY AND ART

1973 Actual..... \$242,000
 1974 Estimate..... \$206,000
 1975 Estimate..... \$263,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	11	2	13
11 Personnel Compensation.....	182	42	224
12 Personnel Benefits.....	15	4	19
21 Travel & Trans. of Persons..	4	1	5
23 Rent, Comm. & Utilities.....	1	1	2
24 Printing and Reproduction...	1	1	2
25 Other Services.....	1	7	8
26 Supplies and Materials.....	2	1	3
TOTAL	206	57	263
<u>Analysis of Increase</u>			
Necessary Pay.....		7	
Support Funds.....		50	

ABSTRACT - The Office of the Assistant Secretary for History and Art advises and assists the Secretary in planning, implementing, and reviewing the progress of Smithsonian history and art programs. In addition, this office oversees the planning and coordination of the Smithsonian's Bicentennial programs and projects. Included under this heading are the American Studies program and the Joseph Henry Papers project.

An increase of 2 positions and funding of \$50,000 is requested to meet the following support requirements: (1) General Administration - a program assistant and \$40,000 to help meet the rising central administrative workload and (2) Printing and Reproduction - an editorial assistant and \$10,000 to transcribe and sort original source materials in preparation for publication of forthcoming volumes of The Papers of Joseph Henry. An additional amount of \$7,000 is being sought for necessary pay.

PROGRAM - The Office of the Assistant Secretary for History and Art advises and assists the Secretary in planning, implementing, coordinating, and reviewing progress of the programs of Smithsonian history and art bureaus and offices. In addition, this office oversees the planning and coordination of the Smithsonian's Bicentennial programs and projects. The bureaus and offices reporting directly to the Assistant Secretary for History and Art are the Archives of American Art, Cooper-Hewitt Museum of Decorative Arts and Design, Freer Gallery of Art, Hirshhorn Museum and Sculpture Garden, National Armed Forces Museum Advisory Board, National Collection of Fine Arts, National Museum of History and Technology, National Portrait Gallery, Office of Academic Studies, Office of American Studies, Office of Seminars, the Joseph Henry Papers, and Hillwood.

Included in the funding identified for this office are the American Studies program and the Joseph Henry Papers project. The Office of American Studies organizes and conducts a formal program of graduate education in the material aspects of American civilization, and participates in the overall program of historical, archaeological, and architectural history research at St. Mary's City, Maryland, as funded by the state of Maryland, National Endowment for the Humanities, Rockefeller Foundation, and other foundations. The Editor of the Joseph Henry Papers and his staff have been gathering and preparing for publication the manuscripts of Joseph Henry

(1797-1878), a pioneer American physicist and first Secretary of the Smithsonian Institution. Volume one of a multi-volume set was published in December 1972. This and subsequent volumes are to be included in the documentary publications program of the National Historical Publications Commission.

JUSTIFICATION OF \$50,000 INCREASE:

General Administration - The workload of the Office of the Assistant Secretary for History and Art (currently consisting of 4 employees) is increasing significantly as the development of Smithsonian Bicentennial programs and projects accelerates toward 1976. In addition, a major new museum on the Mall, the Hirshhorn Museum and Sculpture Garden, will open in early FY 1975; and Hillwood, the late Marjorie Merriweather Post's estate, will be readied for opening to the public as a new Smithsonian museum. These developments, on top of the year-to-year growth in programs of research, exhibition, publication, and public education in history and art bureaus and offices, require an increased administrative oversight capability in the Office of the Assistant Secretary. Funds for a program assistant and support costs (\$40,000) are requested to provide this capability.

Printing and Reproduction - Publication of the first volume of The Papers of Joseph Henry was the culmination of five years of preparatory work in searching out original source material; organizing, transcribing, and editing those materials; placing them in their appropriate historical context; and interpreting them from the perspective afforded by current-day knowledge of the history of American science and technology. The original source materials already uncovered provide much of the documentation necessary for subsequent volumes in the series. A staff assistant (\$10,000) to transcribe and sort these materials would be an invaluable aid to the historian and his research assistant and would help assure timely publication of forthcoming volumes.

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

1973 Actual.....\$2,787,000
 1974 Estimate.....\$3,854,000
 1975 Estimate.....\$4,093,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	197	0	197
11 Personnel Compensation.....	2,982	109	3,091
12 Personnel Benefits.....	253	9	262
21 Travel & Trans. of Persons..	43		43
23 Rent, Comm. & Utilities.....	15		15
24 Printing and Reproduction...	8	41	49
25 Other Services.....	283	55	338
26 Supplies and Materials.....	75	20	95
31 Equipment.....	195	5	200
TOTAL	3,854	239	4,093
<u>Analysis of Increase</u>			
Necessary Pay.....		118	
Support Funds.....		121	

ABSTRACT - The National Museum of History and Technology is the repository of the national collections documenting the historical and technological achievements of the American people. In FY 1975 an increase of \$121,000 is requested to meet the following support requirements: (1) Registration - \$30,000 to fund contracts for records management specialists for the development of a uniform, coordinated record-keeping system and \$5,000 for photographic support for identification and documentation purposes; (2) Conservation - \$10,000 to initiate restoration and conservation of the Warshaw Collection of Business Americana; (3) Printing and Reproduction - \$36,000 to cover rising printing costs; and (4) Buildings and Facilities Management - \$40,000 to contract for the refurbishing of exhibit halls. An increase of \$118,000 for necessary pay is also requested.

PROGRAM - The National Museum of History and Technology (NMHT) occupies a unique position among the great museums of the world. As the repository of the national collections documenting the historical and technological achievements of the American people, the Museum has responsibility for over 16,000,000 objects related to all facets of the American experience. Each of these objects must receive the highest level of professional care and preservation and must be stored and exhibited using the best techniques available.

Since opening in 1964, the NMHT has provided a variety and richness of public exhibits seen by over 54,000,000 visitors. The Museum annually receives more visitors than any other museum in the world. As the most visited museum in the world, it will be host to almost 7,000,000 visitors during FY 1974. It is anticipated that this annual attendance figure will total more than 15,000,000 by the Bicentennial year, 1976, and continue for several years thereafter.

As a center for the scholarly study of the history of American civilization and the history of science and technology, this Museum continues to support and encourage basic research and publication in many subject fields, ranging from early exploration to studies of contemporary American culture.

In FY 1974, exhibit installation has been completed in the third floor exhibit area representing important aspects of American technology; i.e., the Hall of Printing

and Graphic Arts, the Hall of Photography, the Hall of Stamps and Mail, the Hall of News Reporting, and the Hall of Money and Medals. The major portion of exhibit resources in FY 1974 is being directed towards "Suiting Everyone," an exhibit on the development of ready-to-wear clothing in the United States from the 18th century to the present, and "Of the People," an exhibition focusing on the unique and distinctive political process in the United States, relating how the American people have formed and influenced their government and been affected by their government.

JUSTIFICATION OF \$121,000 INCREASE:

Registration - The national historical collections now contain more than 16,000,000 items many of which are not yet adequately preserved, stored, recorded, and catalogued. The size and variety of the collections, and their disparate origins from within and without the Institution have resulted in the existence of more than 20 variously incompatible record-keeping systems in this museum. With funds provided in FY 1974 the collections management registrarial program has proceeded rapidly with the appointment of a core administrative staff to study and develop collections management procedures and recommend more efficient programs for the future. Under the direction of this staff, curators and support personnel in all divisions are reviewing and revising their procedures to obtain greater conformity and security. In FY 1975, \$30,000 is requested to fund contracts with records management specialists thus permitting the initial implementation of a Museum-wide modern records management and inventory system. In addition \$5,000 is requested for photographic support required for purposes of documentation and identification.

Conservation - The Warshaw Collection of Business Americana, a unique collection of 1 million advertisements, lithographs, photographs, and other memorabilia relating to almost every aspect of American civilization from the early 1800's to 1950, is in constant use for research and the preparation of exhibits. As the collection is composed entirely of paper material, restoration and conservation is required to forestall irreparable damage. An amount of \$10,000 for outside contracts is required to initiate this project which will continue over the next five to ten years.

Printing and Reproduction - No comprehensive catalogue exists for current special exhibits or for any of 40 major exhibit halls. Such catalogues would add greatly to visitors' comprehension and enjoyment; however, the high costs of printing (\$32,000 for the catalogue planned for the "Suiting Everyone" exhibit) generally precludes their publication. A current and continuing need exists for funds (\$36,000) to publish manuscripts for exhibit catalogues, books, and numerous lesser publications prepared each year by the NMHT staff of curators and historians, and to meet rising printing costs.

Buildings and Facilities Management - Existing exhibit areas, which have accommodated an extraordinary number of visitors since 1964, are becoming worn and dirty; and many exhibits are in need of refurbishment. Exhibits personnel, however, are totally involved in an unprecedented volume of exhibit production and installation; and building maintenance personnel are not trained or equipped to handle valuable and fragile items from the collections. An amount of \$40,000 is requested to contract with experts for the refurbishing of existing exhibits in order to provide clean, attractive surroundings for the collections and visitors.

NATIONAL COLLECTION OF FINE ARTS

1973 Actual.....\$1,368,000
 1974 Estimate.....\$1,607,000
 1975 Estimate.....\$1,714,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	<u>79</u>	<u>3</u>	<u>82</u>
11 Personnel Compensation.....	1028	84	1112
12 Personnel Benefits.....	87	7	94
21 Travel & Trans. of Persons..	24		24
22 Transportation of Things....	45		45
23 Rent, Comm. & Utilities.....	10		10
24 Printing and Reproduction...	15	7	22
25 Other Services.....	252		252
26 Supplies and Materials.....	50	9	59
31 Equipment.....	80		80
41 Grants.....	<u>16</u>		<u>16</u>
 TOTAL	 <u>1607</u>	 <u>107</u>	 <u>1714</u>
<u>Analysis Of Increase</u>			
Necessary Pay.....		44	
Support Funds.....		63	

ABSTRACT - The National Collection of Fine Arts (NCFA), the oldest national collection of art, is devoted to the conservation, study, and presentation of American painting, sculpture, prints and drawings, and, in the Renwick Gallery, American design and crafts. In FY 1975 an increase of 3 positions and funding of \$63,000 is requested to meet the following support requirements: (1) Conservation - an additional conservator (\$18,000), specializing in works on paper, and supporting funds of \$9,000 for laboratory equipment and supplies; (2) Registration - an additional person to serve as assistant to the registrar for the effective control of expanding collections (\$10,000); (3) Archives - an archivist (\$12,000) to handle the photographic reference files, shortly to be increased by over 400,000 negatives of works of American art, and an additional \$7,000 for equipment and supplies; and (4) Printing and Reproduction - \$7,000 to meet the cost of increased publication activity. An amount of \$44,000 is also requested for necessary pay.

PROGRAM - This major collection of American art, the origins of which go back to the 1830's, was uncatalogued and ill-housed until the present facility was opened in the former Patent Office in 1968. The collection of some 15,000 works has now been registered on computer and arranged, either in carefully planned galleries or in systematic storage, so that every work is available for public pleasure or scholarly study. About 1,700 works are on loan to public offices in the Washington area. Exhibitions are presented in the United States and abroad, and an active program of education is maintained for the schools and the general public.

In FY 1974, twenty-three exhibitions were organized and presented, including "Paintings from the Pacific Northwest," "Shaker" (at the Renwick Gallery), the 23rd National Exhibition of Prints (in conjunction with the Library of Congress), and the "Paintings of Robert Loftin Newman." Exhibitions were accompanied by authoritative publications prepared by the museum. Some nineteen separate publications were

issued. The important Lincoln Gallery was restored and totally reinstalled to present a wide range of aspects of American art from the eighteenth century to the present. New galleries devoted to European paintings and sculpture, and portrait miniatures were opened. "Explore," a special children's gallery, was newly installed. NCFA's Office of Exhibitions Abroad arranged for exhibitions to travel to Europe and South America. The very active education program was expanded to offer further activities for school children and the public. (Some 15,000 public school children attended sessions within the museum, and many others were reached in the schools themselves.) Thirty-six museum interns were introduced to museum practices through on-the-job training. The research program included nine doctoral students completing studies of American art.

JUSTIFICATION OF \$63,000 INCREASE:

Conservation - Although this large collection has now been properly catalogued and made available to the public and scholars, the effect of many years of neglect has not yet been entirely compensated for. A major part of the collection is in need of restoration or special care. With only two conservators, NCFA's progress in arresting the deterioration of paintings, sculpture, and graphic works and returning them to a proper condition for display has been slower than either proper use of the collection or the safety of the works requires. In order that this essential task can be accomplished more effectively, an additional conservator, specializing in works on paper (\$18,000) and supporting funds of \$9,000 for laboratory equipment and supplies are requested.

Registration - In order to assure the proper use of the collection and to accommodate the additional activity of the Renwick Gallery, it has been necessary to reorganize the entire registrarial operation over the last two years. The registrar is responsible for all works of art in the museum, both borrowed and permanent, for their registration, storage, shipping, photographing, and accessibility to public and scholars. Each year, in addition to the daily work of maintaining the collection, an average of 1,000 works are accessioned, computer files are maintained, 4,500 transactions of lending, borrowing, and shipping of works are completed, some 12,000 photographs are made and supplied to requesters--all by a staff of only nine persons. For the effective operation of this expanded activity an additional person to serve as assistant to the registrar is needed (\$10,000).

Archives - The NCFA has become a major reference center for information about American art, yet much material on hand has not yet been organized to allow its maximum use by the public. Most critical are the rapidly growing photographic reference files, now numbering over 75,000 and shortly to be increased by over 400,000 photographic negatives of works of American art from the Juley collection. A knowledgeable archivist (\$12,000) is badly needed to make this material available, and \$7,000 additional for equipment and supplies.

Printing and Reproduction - In the expansion of its educational activity in American art, the range and nature of the NCFA's publications has changed. The eight major and many smaller publications planned for FY 1974, which range from the first full study of the painter Robert Loftin Newman to a presentation of Shaker furniture, extend a bridge between the most advanced research in American art and a broad public. Much material on American art and artists is being made available to the public for the first time through this program. All exhibitions and many permanent galleries are supplemented with published information that serves to make the material more accessible to the public. If this program is to continue at its present level and expand to those galleries not yet covered, \$7,000 of additional funds to meet rapidly rising printing costs are required.

NATIONAL PORTRAIT GALLERY

1973 Actual.....\$1,031,000
 1974 Estimate.....\$1,144,000
 1975 Estimate.....\$1,260,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	44	6	50
11 Personnel Compensation.....	706	89	795
12 Personnel Benefits.....	61	7	68
21 Travel & Trans. of Persons..	20		20
22 Transportation of Things....	11		11
23 Rent, Comm. & Utilities.....	8		8
24 Printing and Reproduction...	5	7	12
25 Other Services.....	51	6	57
26 Supplies and Materials.....	30	7	37
31 Equipment.....	244		244
41 Grants.....	8		8
TOTAL	1,144	116	1,260
<u>Analysis of Increase</u>			
Necessary Pay.....		26	
Support Funds.....		90	

ABSTRACT - The National Portrait Gallery (NPG) is the only national museum of American history that tells the history of the United States primarily in terms of the men and women who made that history. In FY 1975 an increase of 6 positions and funding of \$90,000 are requested to meet the following support requirements: (1) Conservation - a painting conservator (\$13,000) to eliminate the backlog in painting restorations and \$8,000 to permit contracting for specialists in paper and sculpture conservation and for the purchase of necessary supplies and materials for conservation and frame restoration; (2) General Administration - a deputy administrative officer (\$16,000) to assist with personnel administration, monitoring of contracts, and to serve as a liaison with other offices and bureaus in the Institution and \$3,000 for the purchase of office supplies and furnishings and the costs of office machines; (3) Public Orientation and Education - a clerk typist (\$8,000) to assist with mailings, files and planning for lectures, films, and other special events and \$14,000 to permit the hiring of part-time information desk receptionists and the publication of building leaflets and educational materials on special exhibits for free distribution; (4) Library - a library technician and a clerk typist (\$18,000) to eliminate cataloguing backlogs and to assist in processing book orders; and (5) Photography - a lab technician (\$8,000) to enable the photographer to meet the higher volume of work orders occasioned by an expanding exhibit schedule and \$2,000 for film and photographic supplies. An increase of \$26,000 in necessary pay is also requested.

PROGRAM - The National Portrait Gallery is the only national museum of American history that tells the history of the United States primarily in terms of the men and women who made that history. The portraits of these men and women are crucial documents of historical evidence and bear strong witness to the roles these people have played in the American experience.

The Gallery's activities include: (1) the expansion and care of its collections; (2) public education through the exhibition of the permanent collection and specially organized temporary exhibitions; (3) the preparation and national distribution of



The Gallery produces major books, prepares special educational materials---booklets, teachers' guides, biographical sketches---and orientation brochures, and provides a variety of color and black and white reproductions for use by schools.

scholarly and popular publications related to these exhibitions; and (4) the compilation of a definitive catalogue of American portraits, constituting a unique information resource in the areas of American history and biography, art, and iconography.

Nearly 100 portraits were added to the permanent collection in FY 1973 and 1974, more than half of them by gift. Among the most important were a miniature of John Paul Jones by the Comtesse Turpin de Crissé, one of five known plaster casts of the bust of Thomas Jefferson done by Pietro Cardelli when the former President was 76 in 1819, a terra-cotta bust of General Winfield Scott by William Rush, and the only known life portraits of writer F. Scott Fitzgerald and composer Charles Ives.

The Black Presence in the Era of the American Revolution, 1770-1800, an exhibition which included more than 250 paintings, prints, broadsides, documents, letters, and other objects, drew an attendance of more than 160,000 which was larger than that for any exhibition previously held at the Gallery. A catalogue was published in book form by the New York Graphic Society in association with the Smithsonian Institution Press. A 72-page educational booklet and a teaching guide also were produced. A small show marking the sesquicentennial of the Monroe Doctrine opened on the anniversary of that event, December 2, 1973. Scheduled for a period of six weeks beginning in February 1974 is an exhibition of self-portraits by American artists containing 109 works ranging in date from the late seventeenth century to the present time. Catalogues accompany both of these exhibitions.

The Gallery's first major bicentennial exhibition In the Minds and Hearts of the People: Prologue to Revolution, 1760-1774 will open on June 14, 1974. A full-scale catalogue of the exhibition is being published by the New York Graphic Society, and related educational materials also will be produced.

JUSTIFICATION OF \$90,000 INCREASE:

Conservation - Because the Gallery's permanent collection is still weak in a number of significant areas, it is extremely important that every portrait acquired be placed on public view as quickly as possible. Unfortunately, more than half of the paintings which are added to the collection need restoration--sometimes quite extensive in nature--before they can be exhibited. In FY 1973 and 1974, for example, the NPG conservator completed 125 requests for the routine examination and minor restoration of paintings, in addition to the relining and total restoration of 13 paintings, each requiring a minimum of one week's work. Presently fifteen paintings await restoration, including portraits of Robert Morris, a signer of the Declaration of Independence; President William Howard Taft; and a large Benjamin West portrait of signer Henry Middleton and his family, which alone will require an estimated twenty weeks to restore. To eliminate an existing backlog and to conserve the permanent collection and attend to new acquisitions, the Gallery urgently needs an additional painting conservator (\$13,000). Funds are also requested (\$8,000) to contract for paper and sculpture conservation (areas requiring the skills of specialists but where present requirements do not justify hiring full-time staff) and to purchase relining materials and chemicals required for the conservation of paintings and supplies for frame restoration. The frames of over 30 paintings now on view need restoration which could be provided by a staff member now being trained in the National Collection of Fine Arts' frame shop.

General Administration - The director and administrative officer comprise the same level of administrative staff extant at the inception of the Gallery five years ago. A deputy administrative officer is needed to assist in the increasingly complex operation of the Gallery (\$16,000). Support funds (\$3,000) are needed for the purchase of office supplies and furnishings and for office machines (typewriters, copiers, etc.).

Public Orientation and Education - Wider public recognition of the NPG's programs will attract more visitors and enhance the Gallery's ability to elicit

gifts from prospective donors, many of whom in the past, ignorant of the Gallery's existence, have let portraits of important national figures reach the highly inflated commercial market. A clerk typist (\$8,000) is required to support the Gallery's public affairs officer by assisting with mailings, files, and planning for lectures, films, and other special events which will take place in the historic "Model Hall" of the Gallery being restored in FY 1974. So that the guard force can devote its undivided attention to security responsibilities, which will become more demanding as attendance (up 47 percent in the first half of FY 1974) increases, the Gallery needs to hire part-time information desk receptionists to work weekends, dispense literature and self-guiding tour materials, and monitor audio-visual mechanisms (\$7,000). In addition, funds are required for orientation leaflets and educational materials for free distribution in connection with the Gallery's special exhibitions (\$7,000).

Library - The library staff is overburdened by routine tasks of cataloguing new titles and responding to staff and public requests for library services. In FY 1973, 1,400 titles were catalogued, but 2,700 remain in a backlog which has accumulated over the past five years. A library technician (\$10,000) is needed to reduce this backlog, as well as to assist in processing orders (a need estimated at two days per week above the present capability). In addition, a clerk typist (\$8,000) is required to assist the librarian with administrative and clerical tasks which now take the time of professional and technical library staff. There is no present clerical support in the library which serves both the National Portrait Gallery and the National Collection of Fine Arts.

Photography - In FY 1973 the Gallery's photographer responded to over 350 work orders which required 1,640 black and white photographs, 8,400 prints, 4,500 35mm slides, and 970 color reproductions and negatives. The demand for photo services in connection with research, documentation, exhibits production, and public education will increase in FY 1975 with the expansion of the NPG exhibit schedule following the renovation this spring of the "Model Hall" and other areas. A lab technician (\$8,000) will assist the photographer to meet the higher volume of orders and enable him to direct the production of educational film strips, slide sets, video tapes, etc. increasingly needed by the Gallery. An additional \$2,000 is requested for film and photographic supplies increasingly used to document the collections, provide reproductions ordered by the public, and for photographic enlargements needed in connection with the installation of exhibitions.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

1973 Actual.....\$1,140,000
 1974 Estimate.....\$1,301,000
 1975 Estimate.....\$1,275,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	37	15	52
11 Personnel Compensation.....	470	235	705
12 Personnel Benefits.....	40	20	60
21 Travel & Trans. of Persons..	15		15
22 Transportation of Things....	11	-6	5
23 Rent, Comm. & Utilities.....	24	-12	12
24 Printing and Reproduction...	5	38	43
25 Other Services.....	110	280	390
26 Supplies and Materials.....	21	5	26
31 Equipment.....	600	-586	14
41 Grants.....	5		5
TOTAL	1,301	-26	1,275
<u>Analysis of Increase</u>			
Necessary Pay.....		20	
Program Funds.....		-46	

ABSTRACT - With its opening in the fall of 1974, the Hirshhorn Museum and Sculpture Garden (HMSG) must be prepared to maintain a full and balanced program of exhibitions, educational activities, research, curation, and technical support, including conservation, registration, and publication. A build-up of staff is required to meet these needs. No additional funds are requested for FY 1975. A net savings of \$26,000 is projected. This estimate is based on a cost savings in the base resulting from the completion of major procurement of furnishings and equipment and the relocation in FY 1974 of personnel transferring with the collection to Washington, D. C.

PROGRAM - The HMSG will house a magnificent gift to the nation of outstanding modern paintings and sculpture. While the Hirshhorn collection will form the strong core of the Museum's holdings, a continuing program of new acquisitions by gift and purchase will be pursued. In addition, a lively program of temporary exhibitions utilizing loaned materials will enhance the breadth and depth of the Museum's offerings to the viewing public. For scholars, students, museum professionals, teachers, researchers, and art publishers, the HMSG will continue to be a major source of documentation and reference in the field of modern art.

The Act of November 7, 1966, authorized construction of the Museum and designated the Mall site. Building construction, which began in March 1970, is now substantially completed. The building was made available for occupancy by the staff in December 1973. All phases of the work are presently geared to prepare for the opening of the Museum in the fall of 1974.

In FY 1974 extensive planning is being devoted to the establishment of a full range of museum activities, including curation, conservation, registration, exhibition, and loan activities. In addition, development has begun of a comprehensive education program involving an electronic tour-guide system, docent services, and the preparation and scheduling of auditorium activities of special interest to the Washington community.

Initial work is also proceeding in the preparation of exhibit catalogues and the arrangement of study facilities for visiting scholars, research fellows, and qualified students studying specific works in the collection.

JUSTIFICATION OF 15 POSITIONS - Additional required technical and support staff include three positions for general administration, five for conservation work, two to assist in registration, two for research, one position for photography, an additional position in public orientation and education, and one exhibits technician. The redistribution of funds and the requested increase in personnel in FY 1975 will enable the Museum to strengthen its staff in support areas such as registration and conservation and to make fully operational ongoing and planned programs related to education, the research, curation, and exhibition of approximately 6,000 works of art, and the preparation of museum publications. Also funded in the FY 1975 estimate is the planning and installation of one major and one minor exhibition.

FREER GALLERY OF ART

1973 Actual.....\$182,000
 1974 Estimate.....\$206,000
 1975 Estimate.....\$280,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	14	4	18
11 Personnel Compensation.....	160	56	216
12 Personnel Benefits.....	13	4	17
25 Other Services.....	15	7	22
26 Supplies and Materials.....	15		15
31 Equipment.....	3	7	10
TOTAL	206	74	280
<u>Analysis of Increase</u>			
Necessary Pay.....		7	
Support Funds.....		67	

ABSTRACT - The Freer Gallery of Art has a continuing program to search for works of art of the highest quality to be added to the collections, especially Far and Near Eastern art, and to display, conserve, and study these objects as keys to understanding the civilizations that produced them. In FY 1975, \$67,000 and 4 positions are requested to meet the following support requirements: (1) Public Orientation and Education - an education specialist (\$13,000) with proper linguistic and art history training to take charge of all educational programs; (2) Registration - an assistant registrar (\$11,000) to assist in handling the current ongoing workload and to prepare and coordinate records for the central files; (3) Archives - funding of \$4,000 to permit microfilming of irreplaceable documents in a state of deterioration; (4) Conservation - a conservator (\$13,000) and \$2,000 for equipment to continue quantitative analysis and restoration of collections on a more timely basis; (5) Library - An assistant librarian (\$16,000); and (6) Photography - \$8,000 for the purchase or rental of photographic equipment permitting inexpensive and prompt preparation of requested slides, photographs, and copies of documents and records. An amount of \$7,000 is requested for necessary pay.

PROGRAM - The Freer Gallery of Art houses one of the world's most distinguished collections of Far and Near Eastern art. Included in the collection are over 10,000 works of art from China, Japan, Korea, India, and the Near East. The collection covers paintings, sculptures, and other objects in stone, wood, lacquer, jade, pottery, porcelain, bronze, gold, and silver. Items not currently on exhibition and the library of 40,000 volumes are available to students and scholars and used extensively.

During the past few years cultural exchange between the United States and the countries of the Far and Near East has greatly expanded. The resumption of travel to the People's Republic of China has resulted in an extraordinary reawakening of interest in Chinese culture. There has been a corresponding increase in requests for assistance from scholars, both at home and abroad, for tour service, for lectures, and for general information. Curatorial staff members are having to devote more and more of their limited time to respond to these requests.

JUSTIFICATION OF \$67,000 INCREASE:

Public Orientation and Education - Tour service is available, by appointment, at the Gallery on Monday through Friday of each week. Since tour services are requested by groups ranging from grammar school children to graduate students specializing in the Far and Near East, the staff member in charge of the tour must know

precisely the level and interests of each group. Currently there is no member of the staff assigned solely to this project. The addition of an education specialist (\$13,000) with proper linguistic and art history training is requested to take full charge of all education programs. This would allow further expansion of the tour program and provide for the development of a full range of educational materials for use both inside and outside the Museum.

Registration - With the continuing growth of the collection and the addition of new information relating to objects previously acquired, it is essential that the inventory of the collection be continued and be made current. In addition, a new Institution-wide registrarial system, which will provide greater accessibility of information for the staff and the public and a duplicate set of vital records, has substantially increased the registrarial workload. Records must be prepared and coordinated for the central files. The Freer Gallery has but one person in a registrarial position. To assist in meeting these current and continuing needs, an assistant registrar (\$11,000) is required.

Archives - The correspondence of Charles Lang Freer records in precise detail the formation of the collection, the opinions of various scholars regarding individual objects in the collection, and provides invaluable information concerning the presentation of the collection to the nation. A considerable amount of discoloration and deterioration of the stationery makes it imperative that a microfilm copy of these irreplaceable documents be made. One-time funding of \$4,000 is requested for this purpose.

Conservation - The conservation laboratory is responsible for the repair and cleaning of the objects in the collection and their preparation for exhibition, as well as the investigation of the materials from which they are made so that man may better understand the great civilizations of the past and gain insight into materials and techniques of value to our future. There has been a continuing need for an additional conservator, with the result that a backlog of work has been growing rapidly. New standards and techniques are constantly developing, the implementation of which requires that a longer period of time be spent in conserving individual objects. The conservation laboratory is continuing its inventory of the collection to ascertain its condition. Thus far, repairs have, of necessity, been made on a piece-by-piece basis as requested by curators, or as they are required for exhibition.

When studying art objects, quantitative analysis assists in determining those parts that are genuine and those that are spurious. Quantitative analysis of the Chinese bronze ritual vessels in the collection enabled the Gallery to ascertain the alloy constituents of each piece. Consequently, it was possible to understand more fully the bronze technology of the people who made the bronzes; and eventually the information will be of inestimable value in dating and sorting out the place of manufacture. The results of those researches have been published in The Freer Chinese Bronzes, Vol. II. The Gallery is now pursuing similar research on other groups of objects in the collection.

To continue the quantitative analysis and restoration of collections on a more timely basis, an additional conservator (\$13,000) is required. Continuing advances being made in the analysis and conservation of art objects necessitate the purchase of new equipment (\$2,000) that will enable the laboratory to provide more precise information with greater speed.

Library - The Freer Gallery of Art library specializes in materials related to the art and culture of the Far and Near East. Books, periodicals, photographs, slides, maps, and archival material on all phases of the Freer collection come within its jurisdiction. The library is open to the public and is widely used by scholars doing research on all aspects of Oriental art. In addition, library personnel

take part in the cataloguing and documentation of objects in the collection and provide information about the collection on an international basis. Since approximately half of the titles in the library are in Chinese, Japanese and other Oriental languages, it is important that some of the personnel have a working knowledge of one or more of those languages. Funds for an assistant librarian (\$16,000) fluent in Chinese and Japanese are requested.

Photography - The inexpensive and prompt preparation of photographs and slides and copies of documents and records is one of the most important public educational services provided by the Gallery. Requests for this service have continued to increase. Additional equipment for photographing and storing the photographs and slides is essential if the Gallery is to properly meet its responsibility to the public (\$5,000). In addition, an amount of \$3,000 is requested for the rental of a photocopier.

ARCHIVES OF AMERICAN ART

1973 Actual.....\$200,000
 1974 Estimate.....\$234,000
 1975 Estimate.....\$284,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	12	1	13
11 Personnel Compensation.....	174	19	193
12 Personnel Benefits.....	15	1	16
21 Travel & Trans. of Persons..	4	1	5
22 Transportation of Things....	3		3
23 Rent, Comm. & Utilities.....	16	4	20
24 Printing and Reproduction...	15	8	23
25 Other Services.....	3	6	9
26 Supplies and Materials.....	3	4	7
31 Equipment.....	1	7	8
TOTAL	234	50	284
<u>Analysis of Increase</u>			
Necessary Pay.....		7	
Support Funds.....		43	

ABSTRACT - The Archives of American Art (AAA) aids research and scholarship in the history of visual arts by acquiring, organizing, and preserving the primary documentation needed by historians. In FY 1975 an increase of 1 position and \$43,000 is requested to meet the following support needs: (1) one archives aide (\$7,000) and additional funds of \$17,000 to increase processing capability in the Washington center, thereby reducing backlog of unprocessed and unfiled work; (2) \$11,000 to fund contracts with microfilming firms for on-site filming of valuable collections of historical records; and (3) \$8,000 to fund inflationary increases in the cost of rent, communications, shipping, printing, etc., in the regional offices. An additional amount of \$7,000 is requested for necessary pay.

PROGRAM - The AAA is committed to aiding research and scholarship in the history of the visual arts in this country from prior to the Revolutionary War period to the present time. It acquires, organizes, and preserves the primary documentation needed by historians--the correspondence, diaries, business papers, and photographs of painters, sculptors, critics, dealers, and collectors, and the formal records of galleries, museums, and art societies. These collections of papers are catalogued, microfilmed, and made available to scholars. Several million original and microfilm items are now held and are being intensively used by staff and fellows of the National Collection of Fine Arts, the National Portrait Gallery, the National Gallery of Art, faculty and graduate students across the country, and by scholars from such places as Chicago, London, Munich, New Orleans, New York, Paris, Seattle, San Francisco, Stockholm, and Tokyo.

The processing and chief reference center of the Archives is located in space provided by the National Collection of Fine Arts and the National Portrait Gallery library. In order to make its holdings readily accessible to scholars throughout the country and to develop a systematic collecting program, small regional centers are currently maintained in Boston, New York, Detroit, and San Francisco.

An oral history program, begun in 1959, has become an historically significant activity. At the present time, the oral history collection comprises more than

fourteen hundred transcripts of interviews with artists, dealers, collectors, and administrators.

The Archives anticipates income from private funds of about \$155,000 in FY 1974.

JUSTIFICATION OF \$43,000 INCREASE (Archives) - One of the primary areas of concern for the Archives has been its processing and chief reference center located in Washington. With the opening of the Detroit office on a full-time basis in FY 1973 and the San Francisco office in FY 1974, and with the continued success of the Boston office in acquiring such important collections as the Brown Gallery records and the papers of Stanley Woodward and Charles Hopkinson, an increased backlog of unprocessed and unfilmed work has continued to grow in the processing center in Washington. To eliminate this backlog (currently a full man-year of work, and growing), the Archives requires one full-time archives aide (\$7,000), two 700-hour processing clerks (\$6,000), one microfilm camera (\$5,000), and \$6,000 for increased processing and support costs.

In the New England area, art records have been largely unrecorded by other archival institutions. Several large and significant collections of records such as those of the National Academy of Design, Knoedlers, and the Kennedy Galleries in New York, and art related papers owned by the New York Historical Society and the Massachusetts Historical Society, are available to the Archives for filming but may not be removed from the premises, either due to size or security considerations. In addition, individual donors of papers often prefer the security provided by local handling of their material. An increase of \$11,000 is requested to fund contracts with microfilming firms for the on-site filming of these records which cannot be shipped to the processing center in Washington.

General cost inflation has put an added burden on the regional offices. Increased rent and communication costs plus costs of shipping, material, printing, and other services have forced the regional offices to cut back in their collecting program. An increase of \$8,000 is requested to offset this support problem in the regional offices.

NATIONAL ARMED FORCES MUSEUM ADVISORY BOARD

1973 Actual.....\$146,000
 1974 Estimate.....\$144,000
 1975 Estimate.....\$146,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	<u>6</u>	<u>0</u>	<u>6</u>
11 Personnel Compensation.....	76	2	78
12 Personnel Benefits.....	6		6
21 Travel & Trans. of Persons..	2		2
23 Rent, Comm. & Utilities.....	2		2
24 Printing and Reproduction...	2		2
25 Other Services.....	54		54
26 Supplies and Materials.....	1		1
31 Equipment.....	<u>1</u>		<u>1</u>
TOTAL	<u>144</u>	<u>2</u>	<u>146</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		2	
Program Funds.....		0	

ABSTRACT - The Board advises and assists the Board of Regents of the Smithsonian Institution on matters concerned with the portrayal of the contributions of the Armed Forces of the United States. No program increase is sought for FY 1975. An amount of \$2,000 is requested for necessary pay.

PROGRAM - The National Armed Forces Museum Advisory Board, established by Public Law 87-186 (approved August 30, 1961), advises and assists the Board of Regents of the Smithsonian Institution on matters concerned with the portrayal of the historical contributions which the Armed Forces of the United States have made to national development; on matters relating to the implementation of a Bicentennial Outdoor Museum; and on matters relating to the Dwight D. Eisenhower Institute for Historical Research, which is funded by the National Museum of History and Technology.

In 1976 the Smithsonian Institution will present, in cooperation with the Department of the Interior and other interested agencies, a special Bicentennial living-history program consisting of an authentic re-creation of the daily camp life of the citizen-soldier of the American Revolution. Present plans anticipate daily public performances by a cast of approximately 150 people for a period of about 10 weeks. This presentation is being planned and will be produced by the present staff of the National Armed Forces Museum Advisory Board. (Program funding has been requested under the American Revolution Bicentennial Program.)

OFFICE OF THE ASSISTANT SECRETARY FOR PUBLIC SERVICE

1973 Actual.....\$178,000
 1974 Estimate.....\$139,000
 1975 Estimate.....\$234,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	<u>8</u>	<u>3</u>	<u>11</u>
11 Personnel Compensation.....	121	72	193
12 Personnel Benefits.....	10	6	16
21 Travel & Trans. of Persons..	4	2	6
23 Rent, Comm. & Utilities.....		2	2
24 Printing and Reproduction...		2	2
25 Other Services.....	2	9	11
26 Supplies and Materials.....	1	2	3
31 Equipment.....	<u>1</u>		<u>1</u>
TOTAL	<u>139</u>	<u>95</u>	<u>234</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		5	
Support Funds.....		90	

ABSTRACT - The Office of the Assistant Secretary for Public Service guides and supports the public service units in the development of programs to advance the Institution's objectives in education and information. An increase of 3 positions and funding in the amount of \$90,000 is sought to support video work, to coordinate all educational programs from elementary through advanced studies, and to provide additional administrative help. Funds in the amount of \$5,000 are sought for necessary pay.

PROGRAM - The primary functions of the Office of Public Service are to stimulate, to coordinate, and to supervise the steadily increasing activities of the Smithsonian's educational and public service components. These include the unique experimental efforts of the Anacostia Neighborhood Museum, the many-faceted work of the Division of Performing Arts in synthesizing and presenting to the American public across the nation the historical and continuing development of the American aesthetic experience, the programs of the Office of Elementary and Secondary Education to make the Smithsonian's facilities and collections accessible and pertinent to visiting school children, the dissemination of Smithsonian research and interests through the Smithsonian Press and the Smithsonian Magazine, the organization and conduct of meaningful adult and teenage educational presentations by the Smithsonian Associates, a nation-wide basic educational program conducted by Reading Is Fundamental, Inc. under Smithsonian auspices, and an active public affairs operation dedicated to keeping Americans currently informed of the educational programs and exhibits available to them at or through the facilities of the Smithsonian Institution.

JUSTIFICATION OF \$90,000 INCREASE:

Public Orientation and Education - The need to use modern technology for education has prompted the Smithsonian to employ a video program coordinator. The potential use of audio-video communications for information transfer and educational services is tremendous. Someone familiar with telecommunications would strengthen this effort (\$16,000). The Free Film Theater is run in the Museum of History and Technology. Additional funds are requested to bring outstanding educational films to the public. Recently "The Ascent of Man" series has been shown. Due to its

popularity, additional showings have had to be scheduled and admission has been by ticket. Additional money for rentals (\$3,000) would make possible the showing of additional high quality films.

In pursuance of its basic mandate for the diffusion of knowledge the Institution devotes a major effort to public education. Exhibits fill part of this requirement, but their focus is necessarily broad in scope and only effective to the extent that the very general audiences who view them are receptive to their message. Research publications are another element of our education effort, but these in turn appeal for the most part to restricted audiences specifically interested in their contents. The Institution has therefore developed in recent years a wide range of direct educational efforts designed to meet the needs and to develop the interests of specific interest groups such as elementary and secondary school children and their teachers, pre- and post-doctoral researchers, seminar participants, minority group trainees, and groups of people of varying age and educational backgrounds but who share some specific common interest in pursuit of which they are enrolled in a Smithsonian Associates class. These special educational activities are planned and conducted in several small program offices including those under the general heading of Academic and Educational Programs, as well as in the major museums and galleries which properly have programs tailored to their own collections, exhibitions, and audiences. Adequate planning assistance, guidance, coordination, and evaluation of all these special education activities is required at the Institutional level. A coordinator of programs is requested (\$26,000) with office support funds (\$3,000).

General Administration - A special assistant for programs is needed to help the Assistant Secretary with operational and programming functions (\$31,000). Funds are also required for travel and office expenses (\$11,000).

ANACOSTIA NEIGHBORHOOD MUSEUM

1973 Actual..... \$261,000
 1974 Estimate..... \$319,000
 1975 Estimate..... \$382,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	21	0	21
11 Personnel Compensation.....	206	10	216
12 Personnel Benefits.....	18	1	19
23 Rent, Comm. & Utilities.....	28	14	42
24 Printing and Reproduction...	12	2	14
25 Other Services.....	39	36	75
26 Supplies and Materials.....	10		10
31 Equipment.....	6		6
TOTAL	319	63	382
<u>Analysis of Increase</u>			
Necessary Pay.....		11	
Support Funds.....		52	

ABSTRACT - The Anacostia Neighborhood Museum (ANM) provides a relevant and educational museum experience for audiences unaware of or unaffected by major museum resources on the Mall. An exhibits design and production laboratory, presently under construction, will provide a facility for training museum technicians and for producing exhibits pertinent to and representative of the lives and experiences of minority group members. An increase of \$52,000 is requested in FY 1975 to meet the following support requirements: (1) Buildings and Facilities Management - \$50,000 to fund operating and maintenance costs of the new laboratory facility, e.g. utilities, telephone, custodial services, office furnishings, supplies, and equipment and (2) Printing and Reproduction - \$2,000 to fund printing costs of exhibit catalogues and educational pamphlets and brochures. An additional \$11,000 is requested for necessary pay.

PROGRAM - ANM was opened in 1967 to reach out to new audiences who are unaware of museum resources, physically too far from them, or, as inhabitants of low-income population density centers, do not see the interest or relevance of museums. By linking its research, exhibits, and education activities directly to the needs of the community, the ANM has assured a fresh, nontraditional approach to the role of the museum. The Museum is a combination of many things. It offers learning experiences through changing exhibits on subjects relevant to the community. It serves as a community center, recreational facility, and arts and crafts workshop. Exhibit and education efforts have focused on Black history, music, and the fine arts as well as urban problems. Two major exhibits have been produced in FY 1974--"Africa - Three Out of Many: Ethiopia, Ghana, Nigeria" and the "Barnett-Aden Exhibition," a private collection composed largely of the works of important Afro-American artists.

Activities in the education area include guided tours of museum exhibits; special programs and activities in the Children's Room, ranging from demonstrations in soap making to seminars and forums on housing, urban renewal, and mass transportation; films, lectures, and a pilot seminar conducted in cooperation with the Career Development Department of the D. C. schools; many performing arts programs such as the Young People's Festival of the Arts; and major outreach efforts in the Anacostia schools.

JUSTIFICATION OF \$52,000 INCREASE:

Buildings and Facilities Management - In the field of exhibits preparation, there is a great need for creative people who are sensitive to the needs of inner city minority groups. In an attempt to alleviate this shortage, which exists not only in the Smithsonian but also throughout the museum field, the ANM is establishing an exhibits design and production laboratory. The Laboratory will be at once a facility for training minority museum technicians, a facility for the production of exhibits and related educational materials for the needs of the ANM and the Smithsonian Institution's Bicentennial programs, and a community center. Its primary function will be a vocational training center for minority museum technicians drawing on local Anacostia residents for the initial trainees, the Laboratory will give on-the-job training in exhibits design and production while experimenting in novel exhibition techniques. When in full operation, the Laboratory will train technicians from all over the country and produce exhibits relevant to minority groups as a function of the Bicentennial outreach programs of the Smithsonian. Using funds appropriated under the American Revolution Bicentennial heading, construction of a laboratory facility has begun and is expected to be completed by the end of FY 1974. The first two years of the training program with prospect for extension will be financed primarily through a foundation grant. Currently, however, no funds have been provided for the operation and maintenance of the Laboratory. An increase of \$50,000 is requested in FY 1975 to fund the costs of telephone service; utilities; custodial services; office furnishings, supplies, and equipment; and various operating costs which will occur in the initial year's occupation of a new building.

Printing and Reproduction - In the past, printing needs of the ANM were funded primarily with private funds. Today, with increased printing requirements for exhibit catalogues and educational materials, rising printing costs, and private funds becoming more and more difficult to obtain, support funds available in the Smithsonian Press for the ANM (\$1,500) have proved to be totally inadequate. An increase of \$2,000 is requested to provide more realistic and dependable support of the Museum's printing needs.

INTERNATIONAL EXCHANGE SERVICE

1973 Actual.....\$152,000
 1974 Estimate.....\$176,000
 1975 Estimate.....\$181,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	9	0	9
11 Personnel Compensation.....	100	5	105
12 Personnel Benefits.....	9		9
22 Transportation of Things....	61		61
26 Supplies and Materials.....	5		5
31 Equipment.....	1		1
TOTAL	176	5	181
<u>Analysis of Increase</u>			
Necessary Pay.....		5	
Program Funds.....		0	

ABSTRACT - Through the International Exchange Service, public and private institutions in the United States exchange publications with organizations in other countries. This includes the exchange of official publications such as the Federal Register, the Congressional Record, and U.S. Patent Specifications, as well as private publications such as medical and dental texts. No program fund increase is being requested in FY 1975. An amount of \$5,000 is requested for necessary pay.

PROGRAM - In 1849 the Smithsonian Institution established a system for the exchange of Smithsonian publications with the learned societies of other countries. This program was so successful that later it was expanded to other American organizations. The Exchange's responsibilities were formalized when the Brussels Convention of 1886 was adopted by the United States, and the Smithsonian Institution became the official exchange bureau in the United States for the international exchange of literary, scientific, and cultural publications. In addition, 14 Stat. 573, as amended, provides that the exchange of the United States Government publications shall be made through the Smithsonian. In FY 1973, approximately 2.5 million publications were transmitted to over 100 countries for exchange documents.

DIVISION OF PERFORMING ARTS

1973 Actual.....\$313,000
 1974 Estimate.....\$356,000
 1975 Estimate.....\$362,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	<u>10</u>	<u>0</u>	<u>10</u>
11 Personnel Compensation.....	219	6	225
12 Personnel Benefits.....	19		19
21 Travel & Trans. of Persons..	12		12
22 Transportation of Things....	3		3
23 Rent, Comm. & Utilities.....	2		2
24 Printing and Reproduction...	4		4
25 Other Services.....	80		80
26 Supplies and Materials.....	12		12
31 Equipment.....	<u>5</u>		<u>5</u>
TOTAL	<u>356</u>	<u>6</u>	<u>362</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		6	
Program Funds.....		0	

ABSTRACT - The Division of Performing Arts is responsible for the supervision and production of performing arts activities at the Smithsonian, emphasizing those programs that deal with our national aesthetic expressions and that relate to the collections of the museums. No program increase is sought for this activity in FY 1975. Necessary pay in the amount of \$6,000 is being sought.

PROGRAM - The Division of Performing Arts is responsible for the supervision and production of public performances particularly as they evidence themselves in oral, music, or dance forms. The Festival of American Folklife that was presented at a new location on the Mall, along the reflecting pool, and for a longer period, was well received in July 1973. This location will probably be used again in 1974 because of the disruption Metro construction has caused on the old Mall location. This Festival, produced in cooperation with the National Park Service, provides an educational experience for a million visitors. The Division's Jazz Series has been widely acclaimed by audiences and critics alike. The recent publication of the Smithsonian Collection of Classic Jazz (on recordings) has already had major impact on the teaching of American musical history. By staging such events, the Division undertakes to extend and enliven the Institution's educational services to the public.

OFFICE OF PUBLIC AFFAIRS

1973 Actual..... \$405,000
 1974 Estimate..... \$310,000
 1975 Estimate..... \$318,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	12	0	12
11 Personnel Compensation.....	211	8	219
12 Personnel Benefits.....	18		18
21 Travel & Trans. of Persons..	2		2
24 Printing and Reproduction...	49		49
25 Other Services.....	22		22
26 Supplies and Materials.....	7		7
31 Equipment.....	1		1
TOTAL	310	8	318

Analysis of Increase

Necessary Pay.....	8
Program Funds.....	0

ABSTRACT - The Office of Public Affairs is responsible for communication of information about the Smithsonian and its programs to the public through various media--radio, television, newspapers, popular and scientific periodicals, press releases, documentary films, and general information and visitor orientation pamphlets and other items. No additional program funds are requested in the FY 1975 budget. Necessary pay in the amount of \$8,000 is sought for current staff.

PROGRAM - The Office of Public Affairs serves millions of museum and gallery visitors annually, as well as the general public, through the communication of factual and educational data about the Smithsonian and its programs. A wide array of communications media are used: radio, television, newspapers, popular and scientific periodicals, press releases, documentary films, the Smithsonian Calendar of Events, Dial-A-Phenomenon, Dial-A-Museum, and general information pamphlets and publications. It also prepares and makes available to museum visitors a variety of building guide leaflets to assist them in their tours of buildings and exhibits. Included in its presentations are the Torch newspaper, Research Reports, and the "Radio Smithsonian" now heard over 95 stations across the nation. The Office of Public Affairs also administers the Office of Special Events, which assists with exhibition openings, seminars, meetings, and special activities held in Smithsonian facilities in Washington, D. C.

SMITHSONIAN INSTITUTION PRESS

1973 Actual.....\$801,000
 1974 Estimate.....\$823,000
 1975 Estimate.....\$864,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	26	1	27
11 Personnel Compensation.....	420	38	458
12 Personnel Benefits.....	34	3	37
21 Travel & Trans. of Persons..	2		2
24 Printing and Reproduction...	358		358
25 Other Services.....	5		5
26 Supplies and Materials.....	2		2
31 Equipment.....	2		2
TOTAL	823	41	864
<u>Analysis of Increase</u>			
Necessary Pay.....		16	
Support Funds.....		25	

ABSTRACT - The Smithsonian Institution Press is responsible for the editing, design, production, and distribution of printed material produced by historians, scientists, and curators. Included in this work are books, catalogues, pamphlets, and leaflets. An increase of one position and \$25,000 is requested for a support requirement in Printing and Reproduction to employ an editor. An additional amount of \$16,000 is being sought for necessary pay.

PROGRAM - Press publication activity is a fundamental extension of the work of the Smithsonian's basic research laboratories. Necessary for ecological and agricultural advancement and other basic and applied studies by researchers, these reports are distributed to major libraries and scientific institutions in all 50 states and many foreign countries. For the many millions of visitors to the Smithsonian each year, the Press edits manuscripts and issues contracts for the printing of exhibit catalogues, education pamphlets, and informative leaflets. The Press reviews each manuscript submission for editorial content and completeness, quality of typing, illustrations, etc. before acceptance. Inadequately prepared manuscripts (i.e. those that would be too costly to edit or manufacture) are not accepted for publication. Finally, the Press furnishes the Institution with a variety of necessary manuals, reports, and directories, including copies of Congressional materials and reports from Government agencies.

JUSTIFICATION OF \$25,000 INCREASE (Printing and Reproduction) - The volume of manuscripts is growing and is anticipated to reach 40,000 pages over the next two years as a result of increased productivity on the part of the scientific staff and Bicentennial preparations and presentations. The volume of manuscript production varies substantially among the various bureaus and for this reason, special funding requirements for FY 1975 are being justified in the bureaus generating the increased workload. For a trial period the funds existing in the FY 1974 Press base for printing are being retained by the Press. This will allow flexibility in responding to fluctuating needs and ensure efficient application of this resource.

An increase (\$25,000) is requested to employ an additional editor. Depending on the complexity of the material, an editor can process about 2,200 manuscript pages per year. The current staff of 13 editors and designers can produce about 29,000 pages. The additional editor will help in the timely production of finished publications.

OFFICE OF THE ASSISTANT SECRETARY FOR MUSEUM PROGRAMS
AND
OFFICE OF MUSEUM PROGRAMS

1973 Actual.....\$296,000
1974 Estimate.....\$337,000
1975 Estimate.....\$413,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	9	3	12
11 Personnel Compensation.....	144	60	204
12 Personnel Benefits.....	14	5	19
21 Travel & Trans. of Persons..	12	1	13
23 Rent, Comm. & Utilities.....	9		9
24 Printing and Reproduction...	16		16
25 Other Services.....	125	3	128
26 Supplies and Materials.....	10	2	12
31 Equipment.....	7	5	12
TOTAL	337	76	413
<u>Analysis of Increase</u>			
Necessary Pay.....		7	
Support Funds.....		69	

ABSTRACT - The Office of the Assistant Secretary for Museum Programs oversees and reviews the Institution's museum and exhibition activities, with special emphasis in developing experimental and educational exhibits, surveying visitor reactions to the Institution's services, and providing advice and technical assistance to other museums.

An increase of 3 positions and funding of \$69,000 is requested to meet the following support requirement: General Administration - an executive assistant for the Assistant Secretary, a curator for the Arts and Industries Building, and a secretary. An additional amount of \$7,000 is being sought for necessary pay.

PROGRAM - The Office of the Assistant Secretary for Museum Programs oversees and reviews the general administration of the Office of the Registrar, Conservation Analytical Laboratory, Office of Exhibits Central, Smithsonian Institution Libraries, Smithsonian Institution Traveling Exhibition Service, Smithsonian Archives, National Museum Act, and the Arts and Industries Building. In addition, it cooperates with museum professionals and their associations and organizations to increase the effectiveness of museums in the performance of their scholarly and public education functions.

The Office of Museum Programs (OMP) maintains three technical programs: (1) a training workshop program in museum practices, (2) a series of audio-visual presentations (slides and video) in conservation techniques, and (3) psychological research measuring the effectiveness of exhibit and educational programs. OMP offers a series of technical workshops to museum professionals throughout the United States. In FY 1975, approximately 25 one-week workshops will be presented on such topics as model-making, lighting, exhibit design, financial planning, etc. These workshops provide on-the-job training. The second special program disseminates information on conservation techniques and practices through the production of slide/audio cassette kits, such as "The Cleaning of Prints, Drawings, and Manuscripts on Paper: Dry Methods," "Handling of Ethnological Specimens," and "Cleaning and Protecting Silver Objects." Twelve individual titles will be completed by the end of FY 1974. Also, 40 one-hour video tapes are produced for student training in conservation. The third major project consists of research studies exploring the learning potentials of museum

exhibits. Currently, research projects are in progress examining the informative levels of guided tours for school youngsters, orientation materials and programs for the general visitor, and a survey of reactions to exhibits of natural history.

JUSTIFICATION OF \$69,000 INCREASE (General Administration) - The Arts and Industries Building, which was completed in 1881, has been declared to be a "Landmark of Importance," by the Joint Landmarks Committee of the National Capital Planning Commission and the Commission of Fine Arts. This building was originally constructed to house large collections of great value donated by foreign governments and other exhibitors at the Philadelphia Centennial Exposition of 1876. Currently it is being used to display test exhibits from the National Air and Space Museum's collections.

For the Bicentennial this exhibition space will be converted into an "Exposition Hall" displaying materials from the national collections held by the National Museum of History and Technology. A curator and secretary (\$33,000) are needed to provide on-the-spot supervision of the installation and maintenance of this exhibition and others that will follow. The curator will also be responsible for the acquisition and inventory of antique furnishings that are expected to be acquired to restore public areas to close to their original appearance. Other object spending (\$11,000) is requested to provide travel, other services, supplies, and equipment for the curator.

An executive assistant (\$25,000) to the Assistant Secretary is requested. He will act as a liaison between the Assistant Secretary and the units reporting to him and will be available to aid the Assistant Secretary in preparing reports and undertaking special studies. No assistant is currently available for assignment to these tasks.

CONSERVATION-ANALYTICAL LABORATORY

1973 Actual.....\$263,000
 1974 Estimate.....\$377,000
 1975 Estimate.....\$571,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	19	7	26
11 Personnel Compensation.....	223	104	327
12 Personnel Benefits.....	19	9	28
21 Travel & Trans. of Persons..	10	5	15
23 Rent, Comm. & Utilities.....		1	1
25 Other Services.....	61	27	88
26 Supplies and Materials.....	11	10	21
31 Equipment.....	53	38	91
TOTAL	377	194	571
<u>Analysis of Increase</u>			
Necessary Pay.....		9	
Support Funds.....		185	

ABSTRACT - The Conservation-Analytical Laboratory (CAL) advises on the suitability of building environmental conditions for objects displayed or stored, examines and treats objects for their protection and preservation, analyzes objects for basic research data of interest to scientists and historians, and conducts training programs. The FY 1975 budget proposes an increase of 7 conservators and \$185,000 to continue the phased development of the Laboratory's capability to respond to the conservation needs of newly acquired objects as well as the analysis and treatment of deteriorating objects already in the collections. An amount of \$9,000 also is requested for necessary pay.

PROGRAM - The Conservation-Analytical Laboratory was established in 1963 to serve the museums of the Smithsonian Institution. Staffed by conservators and scientists, it ascertains and advises on the suitability, for artifacts displayed or in storage, of environmental conditions found in the buildings and suggests remedial action if necessary. Based upon examination or analysis, advice is given to curatorial units on conservation procedures for specific objects. Objects which cannot be treated locally, which present special problems, or require more specialized equipment than is available in these units, are treated in this central laboratory.

Analyses of objects or their materials (e.g. pigments, fibers, alloys, or corrosion products) by advanced instrumentation serve to determine appropriate conservation procedures or to provide museum archaeologists and historians with basic research data concerned with dates, attribution, and ancient production methods. Commercial products proposed for prolonged contact with artifacts (or fumigants used in storage) are examined for suitability.

For conservators in the bureaus there are regular lectures and technical information on specific subjects is made available as audio tapes and tape-slide lectures through conservation information programs.

JUSTIFICATION OF \$185,000 INCREASE (Conservation) - Museums serve a unique role in that they are the primary guardians of the evidence of man's cultural development from the earliest times onward. Museum collections, including artifacts, specimens, and works of art, are primary resources in the functions of exhibit display and research. Museums must be able to transmit to future generations the heritage which

previous civilizations have left. For a substantial part of the objects in museum collections this is not likely to occur if greater attention is not given to the needs of conservation. Every material ages and that age brings disintegration. During the last millennia the external factors accelerating this process of decay have been virtually entirely natural in their causes. But over the last century and a half, man has contributed and accelerated this process with the pollution of his increasing urban and industrial society. As a result, objects which under different conditions could have remained sound for decades, or even centuries, are now crumbling. Conservation of the collections requires constant attention to environmental conditions in the buildings and other specialized treatment (including fumigation) to forestall deterioration and decay.

Restoration without a deep understanding of materials' properties and styles is not a complete solution. If it does not affect the causes, it may be worse than nothing. Causes of the decay must be understood. Fundamental research has to be done on the properties of materials; new techniques must be experimented with; and, particularly, new substances used for conservation or repair must be carefully tested to make sure that they will not, now or in the foreseeable future, react adversely with the materials that they are intended to consolidate, or behave towards the objects in a fashion comparable to the pollutants in the air.

The conservation program of the Smithsonian is inadequate to these needs. It must be strengthened both in individual bureaus and in the central Conservation-Analytical Laboratory. Successful conservation efforts in the bureaus require knowledgeable personnel capable of recognizing and correcting specific local conservation problems and treating those items not requiring specialized treatment by the central laboratory.

Accessions of artifacts number about 130,000 a year. Proper treatment of these objects alone is well beyond the present capability of the Institution's conservation facilities. Thirty-two man-years of work each year is estimated to be required for new objects exclusive of the needs of hundreds of thousands of deteriorating objects already in the collections. Conservation and analytical work is detailed and painstaking. During FY 1973 with a staff of 14 scientists, conservators, and support, the CAL completed 202 requisitions involving 597 objects from 31 divisions of 13 bureaus and offices. The additional five positions (and additional space renovation funds approved in the FY 1974 budget) will allow additional projects to be handled, yet thousands of additional requisitions (each one of which might involve many objects) could be submitted by the museums and galleries if they could be undertaken by CAL. By comparison, the British Museum has a conservation-analytical staff of 75 (including 25 conservators and analytical scientists in the central laboratory); and the new Canadian Conservation Institute, which will have five regional centers, is hiring a staff of 100.

In FY 1975, the Laboratory requests seven additional conservators (\$104,000) and funds for travel for professional consultation and instruction; services for equipment maintenance, installation, and computer usage; laboratory supplies; and analytical equipment. (\$81,000)

OFFICE OF EXHIBITS CENTRAL

1973 Actual..... \$2,314,000
 1974 Estimate..... \$1,247,000
 1975 Estimate..... \$1,285,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	69	0	69
11 Personnel Compensation.....	890	35	925
12 Personnel Benefits.....	76	3	79
21 Travel & Trans. of Persons..	8		8
22 Transportation of Things....	1		1
23 Rent. Comm. & Utilities.....	4		4
24 Printing and Reproduction...	20		20
25 Other Services.....	85		85
26 Supplies and Materials.....	83		83
31 Equipment.....	80		80
TOTAL	1,247	38	1,285
<u>Analysis of Increase</u>			
Necessary Pay.....		38	
Program Funds.....		0	

ABSTRACT - The Office of Exhibits Central (OEC), working in close collaboration with museum scientists, curators, and historians, prepares exhibits and related products for those museums, programs, and other offices not having their own in-house capabilities. OEC also provides specialized exhibit assistance to other bureaus and offices. No program increase is requested for this office. Necessary pay in the amount of \$38,000 is sought for existing staff.

PROGRAM - The Office of Exhibits Central was established on July 1, 1973, as a result of a reorganization of the former Office of Exhibits Programs. This reorganization also provided for self-contained design and production units in the National Air and Space Museum, the National Museum of History and Technology, and the National Museum of Natural History. The new central office provides design, production, installation, and maintenance services to those museums, programs, and other offices of the Institution not having their own in-house capabilities for this work and provides the following types of exhibit assistance to other museums whose programs do not require or allow full-time staffing and/or establishment of shop facilities. Consultation as well as job performance is available in the following specialized areas: label editorial services, exhibition lighting, exhibit motion picture production, audio-visual installation and maintenance, freeze-dry taxidermy and the services of models, plastics, and restoration laboratories (specializing in fluid, thermo-setting, and reinforced plastics used in museum applications).

OEC also provides and coordinates training in exhibition media and techniques with the Office of Museum Programs and is developing programs to research, design, develop, evaluate, and communicate new exhibition techniques, systems, and procedures of value to the museum community.

OFFICE OF THE REGISTRAR

1973 Actual.....\$221,000
 1974 Estimate.....\$259,000
 1975 Estimate.....\$347,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	17	6	23
11 Personnel Compensation.....	158	66	224
12 Personnel Benefits.....	13	6	19
22 Transportation of Things....	84	10	94
25 Other Services.....	2	4	6
26 Supplies and Materials.....	1		1
31 Equipment.....	1	2	3
TOTAL	259	88	347
<u>Analysis of Increase</u>			
Necessary Pay.....		10	
Support Funds.....		78	

ABSTRACT - Since the 1880's, the Office of the Registrar has served as the Registrar for the National Museum of Natural History and the National Museum of History and Technology. This office also has served as the focal point for mail/messenger and shipping service. The role of this office is undergoing a review and it is anticipated that it will emerge as a Central Registrar for the Smithsonian.

An increase of 6 positions and \$78,000 is requested to meet the following support needs: (1) Three positions (\$34,000) and computer time (\$4,000) to develop and begin to implement a Control System of Accession Data; (2) A shipping clerk (\$9,000) and support funds (\$12,000) to expand shipping service and increase shipping funds; and (3) Two positions (\$19,000) to establish a central inquiry desk. Funds in the amount of \$10,000 are also being sought for necessary pay.

PROGRAM - This office was established originally to handle the traditional tasks of shipping and documenting accessions. Since that time other duties have been assigned to this office. One of these, the mail/messenger service, will be moved by the beginning of FY 1975 to the Office of Plant Services in order to be more closely aligned with truck services. Better service to the users will result from this change.

The Central Registrar will emerge as the senior member among the registrars of the bureaus. The new office will assist the registrars in the bureaus in refining and extending registration techniques. The result will be an improved intellectual and physical control over specimens by the bureaus and vastly improved information about holdings on the Institutional level.

JUSTIFICATION OF \$78,000 INCREASE (Registration) - The Central Registrar will study and develop a system for control of accession data within the Smithsonian's SELGEM (Self-Generating Master) program. SELGEM was developed by the Information Systems Divisions as a collections management system. With modifications it can be extended to cover collections in all the bureaus. A systems analyst and clerk (\$24,000) are requested to assist the Central Registrar with systems development and inputting registration data to the computer. The Office of the Registrar still maintains the largest volume of registration data in the Smithsonian. Funds are also requested for computer time and related development expenses (\$4,000). A registrar technician

(\$10,000) is requested to upgrade the registration efforts in small bureaus for integration into the total registration system.

A shipping clerk (\$9,000) and related expenses (\$12,000) are requested to enable the shipping office to respond effectively to requests for its services. With one new museum opening to the public, another under construction, and the volume of shipping that will result from the Bicentennial activities, the workload of this office is expected to increase sharply.

One of the jobs assigned to the Office of the Registrar is to open all mail addressed to "Smithsonian Institution". Once opened, some of the mail can quickly be referred to the appropriate offices. Other inquiries remain in the Office of the Registrar to be answered by them or to have the responses coordinated by this office. Two positions (\$19,000) are requested to undertake this work on a full-time basis. Currently several hundred pieces of mail, of which about one hundred are public inquiries, are received daily in the Office of the Registrar.

SMITHSONIAN INSTITUTION LIBRARIES

1973 Actual.....\$1,034,000
 1974 Estimate.....\$1,178,000
 1975 Estimate.....\$1,673,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	65	21	86
11 Personnel Compensation.....	822	253	1,075
12 Personnel Benefits.....	72	22	94
21 Travel & Trans. of Persons..	10	5	15
22 Transportation of Things....	2		2
23 Rent, Comm. & Utilities.....	25		25
24 Printing and Reproduction...	19	37	56
25 Other Services.....	21	23	44
26 Supplies and Materials.....	118	58	176
31 Equipment.....	89	97	186
TOTAL	1,178	495	1,673
<u>Analysis of Increase</u>			
Necessary Pay.....		38	
Support Funds.....		457	

ABSTRACT - The Smithsonian Institution Libraries provide the basic documentary resources and the information search and delivery services that are required by the research, exhibits, and administrative programs of the bureaus and offices of the Institution. An FY 1975 increase of 21 positions and \$457,000 is sought to improve the Libraries standard of performance in four major areas: (1) research and information services - 13 positions and \$181,000 to provide an acceptable level of on-site information and collection management services and to bolster branch library capabilities; (2) general reference and circulation services - 2 positions and \$20,000 to meet demands for service which have increased over 30 percent since the staff was last augmented; (3) support services - 6 positions and \$83,000 to provide services such as acquisition, cataloguing, binding, and preservation, and an additional amount of \$35,000 to fund contracts with commercial binders and rare book specialists; and (4) book, journal and other documentary resources - \$138,000 to purchase books and journals on subjects relevant to the Smithsonian research and exhibit programs. Necessary pay in the amount of \$38,000 is also required.

PROGRAM - The Smithsonian Institution library facilities, consisting of a general library and several bureau libraries, support the research, exhibit, and educational programs of the Smithsonian Institution by acquiring, cataloguing, and indexing books, journals, documents and reports and providing research services based on these collections. The Libraries' collections have achieved national significance in natural history, American ethnology, fine arts, and the history of science, American technology, and culture.

JUSTIFICATION OF \$457,000 INCREASE (Libraries):

Research and Information Services - Since 1964 the Libraries have been striving to improve the management and maintenance of library collections and the provision of on-site reference and information services in the bureaus in order to deliver assistance that is more responsive and supportive of bureau programs. Much of the preliminary work required to catalogue books held in the bureau libraries can be performed on-site in the bureaus, thereby reducing the time these books are out of circulation.

The bureau and branch libraries currently have reached about 40 percent (16 positions) of a goal of 39 positions. (This goal has been increased by two positions since FY 1973 in order to reflect new needs of the Cooper-Hewitt Museum.) The increase requested for FY 1975 of 13 positions and \$181,000 will raise the level of staffing to 75 percent of requirements. Included in the \$181,000 are funds (\$19,000) for the purchase of supplies and equipment.

The additional staff will meet the following needs: (1) two positions (\$21,000) to assist in the cataloguing of 13,000 unprocessed volumes (two-thirds of the collection) - National Air and Space Museum; (2) three positions (\$47,000) to establish the position of bureau librarian, staff the three unmanned departmental libraries, and to integrate the separate parts of the Botany and of the Entomology libraries - National Museum of Natural History; (3) six positions (\$72,000) to strengthen understaffed off-Mall bureaus, enabling them to provide full-time, on-site information and collection management services - Tropical Research Institute, Radiation Biology Laboratory, National Zoological Park, Cooper-Hewitt Museum of Decorative Arts and Design, Smithsonian Astrophysical Observatory; and (4) two positions (\$22,000) to assist in the cataloguing of the 40,000-volume technical trade journal collection, acquired from the Patent Office - National Museum of History and Technology.

General Reference and Circulation Services - Information delivery services include the circulation of library materials among the Institution's central and branch libraries, the processing of loans with libraries outside the Smithsonian, and the response to requests for reference and bibliographic data. Special emphasis is directed towards meeting the requirements of the many offices and departments of the Institution that are too small and dispersed to be served efficiently and economically by on-site facilities. Demands upon the central services staff have increased by 30 percent from 18,500 requests for reference services to approximately 24,000 since the staff was last augmented in FY 1971. To respond to this increased demand on a more efficient and timely basis, an increase of two positions (\$18,000) and \$2,000 in support funds is requested.

Support Services - The General Library support services include the acquisition, cataloguing, binding, and preservation of library materials, and the maintenance of a union catalogue of holdings for the entire library system. There is currently a backlog of 140,000 uncatalogued and incompletely catalogued titles and 85,000 serial volumes that must be bound, filmed, or otherwise preserved. It is estimated that 11,300 titles will be acquired and catalogued in FY 1975, and an additional 2,700 titles will need to be recatalogued. With current methods, processing of these 14,000 titles would require 32 man-years of effort. Improved routines, including the use of computerized data bases, however, are expected to reduce this requirement to 23.5 man-years. In addition, the Libraries will continue to experiment with on-line computer cataloguing in an attempt to reduce processing effort per title. Additional resources required to meet this current workload as well as to begin elimination of the backlog are: acquisitions staff (2 positions, \$18,000), cataloguing staff (2 positions, \$21,000), binding and preservation staff (2 positions, \$18,000), automatic data processing services (\$20,000), and supplies and equipment (\$6,000).

Binding support provided by Library personnel includes the preparation of materials for shipment to the binder and the monitoring of the quality of returned bound volumes. The actual binding must be contracted to commercial firms, including specialists in rare book binding and preservation. At an average cost of \$6 per volume, the cost of binding the 14,000 serial titles and 3,000 monographs in need of binding each year would be approximately \$102,000. Currently only \$30,000 is available for this effort. An additional amount of \$35,000 is requested in FY 1975 to fund contracts with commercial binders and rare book specialists.

Book, Journal, and Other Documentary Resources - In FY 1973 funds were available to acquire about 45 percent of the pertinent literature required to support the Institution's on-going research programs. Currently the average cost of books and journals is \$22 and \$25 respectively; and, based on conservative estimates, prices are increasing 11 percent a year. Additional funding in the amount of \$138,000 is requested. This increase, which would allow the purchase of 3,000 journals and 4,800 monographs for a professional user population of approximately 800 researchers and scholars, would establish a base of \$300,000 for this program, (85 percent of what is considered adequate).

SMITHSONIAN INSTITUTION TRAVELING EXHIBITION SERVICE

1973 Actual.....\$25,000
 1974 Estimate.....\$76,000
 1975 Estimate.....\$77,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	5	0	5
11 Personnel Compensation.....	39	1	40
12 Personnel Benefits.....	3		3
21 Travel & Trans. of Persons..	5		5
22 Transportation of Things....	7		7
25 Other Services.....	22		22
TOTAL	76	1	77
<u>Analysis of Increase</u>			
Necessary Pay.....		1	
Program Funds.....		0	

ABSTRACT - The Smithsonian Institution Traveling Exhibition Service (SITES) provides carefully selected, well-designed, and widely circulated traveling exhibits covering a diversified range in the fields of art, design, science, technology, history, and education. These exhibits include not only Smithsonian exhibits, but also those organized and lent by numerous Government agencies and individuals and organizations throughout the world. No program increase is sought for FY 1975. Necessary pay for existing staff in the amount of \$1,000 is requested.

PROGRAM - SITES, which has been in operation for 22 years, is the only nationwide organization circulating exhibitions of an inter-disciplinary curriculum serving specialized and general museum, galleries, educational and cultural organizations throughout the nation and is the sole official agency of the U.S. to circulate official exhibitions from abroad. In addition SITES acts as a consultant to organizations and persons who wish to circulate their own exhibitions and will administer the Institution's national exhibitions program for the Bicentennial. The non-Federal operating budget in FY 1974 is \$194,000, not including a projected \$200,000 of special purpose gifts, grants, and contracts.

Approximately 4.8 million people view SITES exhibitions annually (upwards of 600 installations viewed by an average of 8,000 each). Requests have been received from each of the fifty states and the District of Columbia as well as from Puerto Rico, other Caribbean Islands, Canada, and numerous countries abroad in FY 1974. One hundred and five exhibitions are presently circulating; existing demands for services could easily sustain twice that figure. Although six requests a day are received from institutions for SITES catalogue of exhibitions, only one out of six is able to afford the least expensive exhibition in spite of the reduction in average rental fees made possible by a Federal appropriation in FY 1974. (In FY 1973 exhibitions renting for over \$200 numbered seventy-two, while those costing under \$200 numbered twenty-nine. In FY 1974, fifty-two shows have rental fees under \$200.) SITES mailing list of corresponding organizations numbers 2,200 (500 more than last year at this time) and increases at the rate of 30 per month. Colleges and universities are SITES most frequent customers (60 percent), followed by museums of all types and sizes (30 percent), and libraries (5 percent). All others make up the remaining 5 percent.

The number of bookings for each state for FY 1974 is shown on the next page. This list shows only bookings reserved as of January 1, 1974.

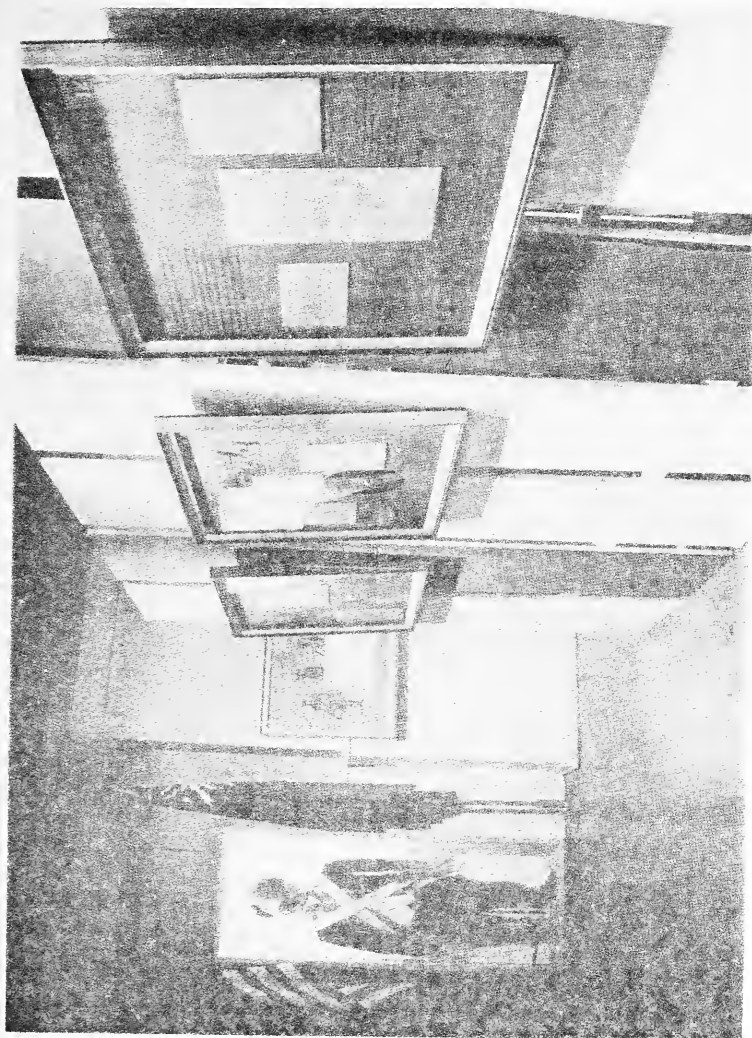
Number of Bookings Each State

FY 1974 (July 1, 1973-December 31, 1973)

Alabama	13	Nebraska	2
Alaska	6	Nevada	0
Arizona	4	New Hampshire	6
Arkansas	8	New Jersey	6
California	22	New Mexico	2
Colorado	9	New York	10
Connecticut	5	North Carolina	8
Delaware	9	North Dakota	1
District of Columbia	12	Ohio	26
Florida	16	Oklahoma	3
Georgia	8	Oregon	6
Hawaii	0	Pennsylvania	19
Idaho	10	Rhode Island	0
Illinois	29	South Carolina	19
Indiana	17	South Dakota	5
Iowa	11	Tennessee	20
Kansas	13	Texas	43
Kentucky	4	Utah	2
Louisiana	7	Vermont	4
Maine	4	Virginia	3
Maryland	8	Washington	2
Massachusetts	15	West Virginia	9
Michigan	25	Wisconsin	13
Minnesota	17	Wyoming	5
Mississippi	13		
Missouri	15		
Montana	11		

Partial Listing of Available or Scheduled Exhibits

American Coverlets	Modern Housing Prototypes
Antwerp's Golden Age	Manuscripts of the American
The Black Presence in the Era	Revolution
of the American Revolution	In Beauty It is Begun: Native Ameri-
Understanding the Environment	can Children's Art
Bikes	Children in Bondage: Photographs of
Folk Paintings from Dalarna	Child Laborers by Lewis Hine
Handicrafts of the Southeast	The American Doll
	Tropical Blossoms



SITES Exhibit - Manuscripts of the American Revolution:

Partial view. Installation at Fort Wayne Military Museum, Detroit, Michigan.
Sponsored by the Detroit Historical Museum. October 13 to November 11, 1973.

NATIONAL MUSEUM ACT

1973 Actual.....\$ 793,000
 1974 Estimate.....\$ 901,000
 1975 Estimate.....\$1,000,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	3	0	3
11 Personnel Compensation.....	39	2	41
12 Personnel Benefits.....	4		4
21 Travel & Trans. of Persons..	16	1	17
23 Rent, Comm. & Utilities.....	4		4
24 Printing and Reproduction...	4		4
25 Other Services.....	1		1
26 Supplies and Materials.....	2		2
31 Equipment.....	3	-2	1
41 Grants.....	828	98	926
TOTAL	901	99	1,000

Analysis of Increase

Necessary Pay.....	0
Program Funds.....	99

ABSTRACT - The National Museum Act is a technical assistance program granting funds for specific proposals which advance the museum profession at large through training, research, publication, or professional assistance. Through these programs, museum personnel have the opportunity to receive training which was not available previously. An increase of \$99,000 is requested to permit the funding of additional worthy grant proposals.

PROGRAM - Public Law 91-629, approved December 31, 1970, reauthorized appropriations for the National Museum Act through FY 1974 and funding of \$1,000,000 to the Smithsonian Institution each year. Of this amount \$901,000 was appropriated for FY 1973, of which \$100,000 was transferred to the National Endowment for the Arts and another \$100,000 to the National Endowment for the Humanities as required by the legislation. Legislation has been introduced to extend the Museum Act for another 3 years. It is anticipated that this will be approved at the \$1,000,000 level.

Funds appropriated to the Smithsonian Institution for the implementation of the National Museum Act are made available, primarily by grants and contracts, to museums, professional associations, and universities. Such funding is made in concert with the National Museum Act Advisory Council appointed for this purpose by the Smithsonian Institution. The membership of the Advisory Council encompasses the principal museum disciplines--art, science, and history--and is broadly representative of all regions of the United States. The Council advises and assists the Secretary in determining priorities and assessing the quality of programs seeking support under the Act.

JUSTIFICATION OF \$99,000 INCREASE - Through January 1974, a total of 51 projects have been funded in the amount of \$450,886. The balance of this year's appropriation will be awarded at the February and May 1974 meetings of the Advisory Council. To date, the following types of grants have been funded: 27 proposals for travel grants to beginning professionals to learn new methods and techniques at various museums; 5 proposals for research in conservation techniques; 3 projects for research in

interpretive methods and approaches; 5 grants to support the publication of technical information; 6 grants to support seminar/workshop training programs; 3 programs offering professional assistance to museums; and 2 special studies grants investigating data-banking for museums and training needs in conservation.

For the first half of FY 1974, 151 proposals have been received compared with the total of 122 proposals received in FY 1973. It is reasonable to expect the number of proposals to more than double by the end of the year. In funding proposals, the Advisory Council has insisted that all proposals clearly demonstrate how the projects will upgrade the profession--its techniques, methods, and approaches.

In addition to reviewing and processing grants, the Office of Museum Programs received approximately 600 inquiries about museum methods, problems, and opportunities. The Smithsonian Institution and the National Endowments for the Arts and Humanities, through their respective offices of museum programs, regularly consult and review programs in order to avoid overlap.

Based upon the positive response of the museum profession to the National Museum Act, the quality of the specific requests, and the great need of the profession, funding at the \$1,000,000 level will permit the Smithsonian to support more fully all aspects of the National Museum Act.

SMITHSONIAN ARCHIVES

1973 Actual.....\$108,000
 1974 Estimate.....\$135,000
 1975 Estimate.....\$173,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	7	3	10
11 Personnel Compensation.....	115	32	147
12 Personnel Benefits.....	10	2	12
21 Travel & Trans. of Persons..	1	1	2
25 Other Services.....	6	3	9
26 Supplies and Materials.....	2		2
31 Equipment.....	1		1
TOTAL	135	38	173
<u>Analysis of Increase</u>			
Necessary Pay.....		4	
Support Funds.....		34	

ABSTRACT - The Smithsonian Archives is the official memory of the Institution and a valuable research resource for scholars working in the history of American science and in the history of the cultural institutions which are under Smithsonian care. The Archives currently has physical control over one million documents and is developing intellectual control over several million additional documents held in research and curatorial areas. Three positions and \$34,000 are sought for the Archives. Two positions and \$16,000 would enable computerized control of archives to be extended and one position and \$18,000 would be used to study and make recommendation on recent archives. An additional amount of \$4,000 is being sought for necessary pay.

PROGRAM - The Smithsonian Institution holds a unique collection of museum objects and archives for research and exhibition. Natural history specimens, art objects, and other collections are interpreted by archival documentation which supplements and explains them. Archival records of the Smithsonian's activities also attract historians and other scholars interested in science and art in the nation's capital from the 1830's to the present. Some 1 million documents are now in the central archives.

The Smithsonian Archives strives to achieve intellectual control over the vast and dispersed archival resources of the Institution amounting to several million documents. In calendar year 1973 the Archives completed indexes to archives in two divisions of the National Museum of Natural History; worked in several other divisions of that Museum and in the National Museum of History and Technology; began substantial input of existing catalogues into the Smithsonian's computer program; accessioned 500 cubic feet of archives; supervised microfilming of the Institution's main accession file which documents all holdings of the National Museum of Natural History and the National Museum of History and Technology; and reported 50 collections to the Library of Congress for inclusion in its catalogue of manuscript collections.

JUSTIFICATION OF \$34,000 INCREASE (Archives):

Extend Computerized Control over Smithsonian Archives - The Smithsonian Archives and the Information Systems Division developed a computer program for control of information about archives. The program is operational in several areas within the Smithsonian. A secretary currently devotes one hour per day to typing input. To

fully utilize the program, two clerks are requested to input data to the computer (\$13,000). One clerk will work in the central archives and the other will work in the National Museum of Natural History and the National Museum of History and Technology. Support funds (\$3,000) are also requested, mostly for computer processing time.

Upgrade Quality of Recent Archives - While most 19th century and early 20th century archival materials are preserved, more recent archives are threatened. No one is currently available for this work. Huge accumulations encourage hasty disposal, and some new forms, especially computer records, pose evaluation problems. Current records practices must be refined to ensure preservation of archives and speedy disposal of worthless materials. For this purpose, one archivist for current records (\$17,000) and support funds (\$1,000) are requested. Support funds include travel to locations in Boston and New York.

SMITHSONIAN INSTITUTION SPECIAL PROGRAMS

These special programs make use of total Institutional resources, including staff research competence, collections, and space for exhibits, to produce outstanding scholarship, exhibits and other presentations, and additional opportunities for public education. These special programs include:

- The American Revolution Bicentennial Program which will advance the Institution's efforts to celebrate and portray "The American Experience," the first two-hundred years of American history and what they may mean for the future.
- The Environmental Sciences Program which is designed to shed light on complex biological processes that need to be better understood before solutions to national ecological programs can be determined.
- The Major Exhibition Program which funds the design and production of exhibits of unusual national significance and timeliness.
- The Academic and Educational Programs office which conducts interdisciplinary seminar series, coordinates educational programs for students at the elementary and secondary school level, and provides opportunities for outstanding pre- and post-doctoral investigators from across the nation to work under the supervision of the Institution's professional staff.
- The Research Awards Program which enables the Institution to fund especially meritorious studies through a competitive selection process.

Full descriptions of these programs appear in the following sections of this budget.

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

1973 Actual.....\$ 754,000
 1974 Estimate.....\$1,728,000
 1975 Estimate.....\$4,236,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	<u>2</u>	<u>0</u>	<u>2</u>
11 Personnel Compensation.....	210	604	814
12 Personnel Benefits.....	16	55	71
21 Travel & Trans. of Persons..	56	80	136
22 Transportation of Things....	19	18	37
23 Rent, Comm. & Utilities.....	8	24	32
24 Printing and Reproduction...	42	590	632
25 Other Services.....	1,050	984	2,034
26 Supplies and Materials.....	93	265	358
31 Equipment.....	230	-117	113
41 Grants.....	4	-4	
42 Insurance Claims & Indemm...		9	9
TOTAL	<u>1,728</u>	<u>2,508</u>	<u>4,236</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		2	
Program Funds.....		2,506	

ABSTRACT - As early as 1965, Congress urged that "attention be given to special exhibits and activities commemorating the Bicentennial of the American Revolution." The last few years have fully proved the Congress' foresightedness. Bicentennial planning is now complete, and the result is an impressive and broad program including ten major exhibitions in the national museums in Washington; more than one hundred traveling exhibitions; important scholarly publications in the fields of anthropology, art, and history; special projects such as the Festival of American Folklife; and a new National Air and Space Museum. The individual projects are now into construction, installation, or publication phases. A program increase in the amount of \$2,506,000 is being requested. Necessary pay in the amount of \$2,000 is also being sought.

PROGRAM - The American Experience - FY 1975 Request:

Bicentennial Exhibitions

A Nation of Nations (National Museum of History and Technology)	\$1,000,000
Ecology 200 (National Museum of Natural History)	500,000
Centennial--1876 (Arts and Industries Building)	400,000
The Artist and the American Scene (National Collection of Fine Arts)	37,000
Design in the City and The Americas (Renwick Gallery)	78,000
Revolutionary Period Exhibitions (National Portrait Gallery)	150,000
City with a Plan (Smithsonian Institution Building)	50,000
	<u>\$2,215,000</u>

Traveling Exhibitions

Information and Exhibit Systems	337,000
Object-oriented Exhibitions (Smithsonian Institution Traveling Exhibition Service)	150,000
Exhibits Design and Production Laboratory (Anacostia Neighborhood Museum)	85,000
	<u>\$ 572,000</u>

Special Bicentennial Projects

Festival of American Folklife (Division of Performing Arts)	\$ 500,000
Bicentennial Outdoor Museum (National Armed Forces Museum Advisory Board)	244,000
	<u>\$ 744,000</u>

Major Scholarly Projects

Inventory of American Paintings Before 1914 (National Collection of Fine Arts)	86,000
Bibliography of American Art (Archives of American Art)	60,000
Encyclopedia of North American Indians (Center for the Study of Man)	300,000
Sternwheeler Bertrand (National Museum of History and Technology)	60,000
	<u>\$ 506,000</u>

Support

Visitor Orientation and Services for the Bicentennial Year Administration	115,000 84,000 *
	<u>\$ 199,000</u>
	<u>\$4,236,000</u>

TOTAL

*Includes funds for legislated pay
increases for temporary staff assigned
to all projects.

JUSTIFICATION OF PROGRAM - A full description of the Smithsonian's Bicentennial program, project by project, is included in the supplement to this budget. This funding summary cuts across project lines in a generalized presentation. Bicentennial funding requirements will decline in the future, but in FY 1975, with the move from the planning and development phase to a stepped-up production and realization phase, they increase. The many projects involving 10 bureaus are above and beyond the Institution's normal level of operations. They cannot be accomplished, in addition to maintaining the Smithsonian's regular program, without special support.

The largest need is for temporary manpower and contractual services. The major exhibitions in process, traveling exhibitions, an expanded and extended Festival of American Folklife, and a special Bicentennial Outdoor Museum require staffing considerably beyond normal levels. Funds will be used for temporary help in exhibits installation, restoration, and research; preparation of catalogue materials; management and coordination; and short-term contracts to accomplish needed work outside the Institution's capability. An amount of \$2,919,000 is requested.

Another area of special need is printing and reproduction. The bulk of the funding will print approximately one-half of the twenty-volume Encyclopedia of North American Indians. The remaining funds will provide necessary panel reproductions for both museum and traveling exhibitions, computerized data production, and free visitor information materials on the Smithsonian and the Bicentennial. To support these efforts, \$632,000 is requested.

In all the projects, additional supplies and materials are needed. Borrowed objects for exhibitions must be transported to Washington and insured. Special equipment must be acquired for use in exhibitions and reproductions produced for the Bicentennial Outdoor Museum. Funding of \$549,000 is requested for these purposes.

Finally, \$136,000 for transportation of persons is requested. A major portion of the funding will support extended field research and participant travel for the Festival of American Folklife. In addition, the museums must search for special objects and specimens to be included in the exhibitions. Travel is also necessary for research related to the major scholarly projects which are nation-wide.

ENVIRONMENTAL SCIENCES PROGRAM

1973 Actual.....\$272,000.
 1974 Estimate.....\$182,000
 1975 Estimate.....\$185,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	8	0	8
11 Personnel Compensation.....	96	3	99
12 Personnel Benefits.....	9		9
21 Travel & Trans. of Persons..	15		15
25 Other Services.....	47		47
26 Supplies and Materials.....	7		7
31 Equipment.....	8		8
TOTAL	182	3	185
<u>Analysis of Increase</u>			
Necessary Pay.....		3	
Program Funds.....		0	

ABSTRACT - The Environmental Sciences Program (ESP) was established in FY 1971 to provide coordinated environmental research at the Smithsonian. A plan has been developed to assemble and analyze biological and physical data on specific important ecosystems to predict the consequence of environmental change. Two Smithsonian research facilities, the Smithsonian Tropical Research Institute (STRI) in Panama and the Chesapeake Bay Center for Environmental Studies (CBCES), are the principle sites being used to carry out these studies. No program increase is requested in FY 1975. Funding in the amount of \$3,000 is sought for necessary pay.

PROGRAM - The Environmental Sciences Program administers a long-range, multi-bureau study of natural fluctuations in several different ecosystems. The Smithsonian is particularly suited to undertake this type of research as a result of the range of disciplines represented in the various bureaus, its large collections of plants and animals with detailed distribution and abundance data, and its control over permanent and protected field-research sites in both temperate and tropical zones. Staff resources consist of specialists from several Smithsonian science bureaus--STRI, CBCES, the Radiation Biology Laboratory, the National Museum of Natural History, and the National Zoological Park, as well as from several universities.

A study is now being conducted in three contrasting environments: a tropical forest on Barro Colorado Island, an intertidal coral reef at Galeta Point (both STRI reserves in Panama) and a temperate estuary in the Rhode River (CBCES). At each site, a number of physical, chemical, and biological factors which vary with time and which together indicate stability, predictability, and variability of each environment are routinely measured. During FY 1974 special attention has been given to evaluating results and casting preliminary models of the data. The first data bank report displaying monitoring results will be produced this year. The ESP is not independent of other research at the various sites. It supplies environmental data to other projects and uses data collected by them. This cooperation is essential because the range of subjects being studied demands an interdisciplinary approach.

MAJOR EXHIBITION PROGRAM

1973 Actual.....\$910,000
 1974 Estimate.....\$108,000
 1975 Estimate.....\$ 80,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	0	0	0
21 Travel & Trans. of Persons..	4	-1	3
25 Other Services.....	84	-24	60
31 Equipment.....	5	-5	
41 Grants.....	15	2	17
TOTAL	108	-28	80
<u>Analysis of Increase</u>			
Necessary Pay.....		0	
Program Funds.....		-28	

ABSTRACT - The major permanent exhibitions of the Smithsonian Institution are nationally and internationally recognized as among the best examples of public communication and education in the museum world. The Major Exhibition Program has as its purpose the production of such exhibitions that will supplement the regular exhibits programs of the museums. The "Benefits From Flight" exhibit underwent initial design in FY 1974. Design will continue at a reduced funding level in FY 1975.

PROGRAM - This exhibit, which will be on public view in the new National Air and Space Museum, will exemplify the many benefits that have accrued on earth as a result of the putting of a man on the moon. The development of this major exhibition requires a substantial research effort intended to produce an assortment of critically assessed real benefits along with the parameters of their development and their potential for future applications. This intensive research, now in progress, will probe in depth the scientific, technological, economic, historical, and social dimensions of selected benefits. The ongoing investigation combines the talents of the Smithsonian curatorial staff with the specialized talents of graduate students at various universities (supported by Smithsonian cooperative fellowships).

The high technology associated with, and nurtured within, the aerospace industry has been and is now being adapted to serve many other needs of our society. We have developed formidable military aircraft and space systems, the latter leading to man's reaching the moon. However, we also routinely view the weather from space, communicate by satellite, and are learning how to monitor the earth's resources using the Earth Resources Technology Satellite (ERTS). Moreover, many of the technological developments born in the military and space systems fields have spawned methods and products now used in our everyday lives--everything from improved paper towels to advanced medical diagnostic sensors.

In the National Air and Space Museum's major exhibit, "Benefits From Flight," the Smithsonian will convey to the visitor the history and meaning of these and many other similar achievements, relating these to the visitor's world of work, home, and leisure. The exhibit will explore the process as well as the impact of air and space technology transfer and utilization.

JUSTIFICATION OF PROGRAM DECREASE (-\$28,000) - FY 1974 is the principal year of the fundamental research on this project, which will continue in FY 1975. Actual production of the exhibit will take place in FY 1976 at an expected cost of \$250,000.

ACADEMIC AND EDUCATIONAL PROGRAMS

1973 Actual.....\$684,000
 1974 Estimate.....\$642,000
 1975 Estimate.....\$662,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	<u>13</u>	<u>0</u>	<u>13</u>
11 Personnel Compensation.....	192	13	205
12 Personnel Benefits.....	16	1	17
21 Travel & Trans. of Persons..	6		6
24 Printing and Reproduction..	4		4
25 Other Services.....	410	6	416
26 Supplies and Materials.....	7		7
31 Equipment.....	<u>7</u>		<u>7</u>
TOTAL	<u>642</u>	<u>20</u>	<u>662</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		14	
Support Funds.....		<u>6</u>	

ABSTRACT - A major Smithsonian objective is to make its resources for learning available to the formal education community and to the general public. These efforts take the form of programs in higher education, advanced studies, and offerings at the elementary and secondary education level. An increase of \$6,000 is requested to expand outreach efforts for the elementary and secondary education program. An additional amount of \$14,000 is being sought for necessary pay.

PROGRAM - Since 1965 through its higher education program the Smithsonian has offered support, administered by the Office of Academic Studies, to 204 Ph. D. candidates and to 197 postdoctoral investigators to enhance their ability as scholars and teachers through collaboration and study with the Institution's research staff. Over 465 undergraduate and first and second-year graduate students have been offered the opportunity to consult the Institution's research staff and collections for short periods. These opportunities are extended both to strengthen the research capabilities of the Smithsonian and to make available to the scholarly and scientific community the Institution's specialized resources. Smithsonian research training augments formal academic studies. Its effectiveness derives from close cooperation with the nation's universities and colleges, which welcome opportunities for their students to receive specialized Smithsonian training that their own facilities cannot provide.

The Office of Seminars is responsible for the Smithsonian's International Symposia Series, its biennial program of public activities centering on a single theme of contemporary importance, from which are published the collected original papers presented and other relevant materials. Interdisciplinary seminar series are scheduled annually, often in cooperation with other institutions of learning. The office serves as a resource facility to universities, cultural organizations, and other branches of the government. In addition, the office coordinates special projects at the request of the Secretary and Assistant Secretaries.

The Office of Elementary and Secondary Education (OESE) coordinates the education programs which are now located directly in the museums. This office prepares teaching guides, audio-visual aids, and other educational materials, directed at pre-college students. It also serves as the liaison between the Smithsonian and the

District of Columbia schools, booking tours for all the bureaus, and is publishing a guide on tours and events of interest to the elementary and secondary level students.

JUSTIFICATION OF \$6,000 INCREASE (Public Orientation and Education) - In the wake of the current and growing fuel shortage, many schools are reducing their programmed visits to the Smithsonian museums and galleries, which makes it imperative that we prepare to bring the educational offerings of the Smithsonian to the schools. Additional funds are needed to enable the Central Office of Elementary and Secondary Education to assist the OESE specialists in each of the Bureaus to expand their Outreach Programs with materials on Smithsonian collections and Smithsonian facilities designed for use in the classroom. While the materials will be used in whole or in part by education people in various bureaus it is the function of the central office to prepare and produce for them slide lectures, printed educational materials, and portable exhibits which can give elementary and secondary school students a stimulating picture of the range of Smithsonian research activity and exhibit facilities. \$3,500 of the requested \$6,000 total will be devoted to this effort. \$1,200 more will be used to develop an audio-visual training program to recruit and orient the volunteer docents who conduct tours in the museums and galleries and who will make the presentations of Smithsonian programs in the schools. Although docents are assigned to specific museums and galleries, the basic docent training and orientation program is a function of the central OESE. Another \$1,300 will be needed for preparation and production of audio-visual presentations to be used in contacts with school administrators, teachers, and education representatives of other museums and which will describe to them how to take advantage of the educational support offered by the Smithsonian.

SMITHSONIAN RESEARCH AWARDS PROGRAM

1973 Actual.....\$450,000
 1974 Estimate.....\$450,000
 1975 Estimate.....\$450,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	<u>0</u>	<u>0</u>	<u>0</u>
41 Grants.....	<u>450</u>	<u>0</u>	<u>450</u>
TOTAL	<u>450</u>	<u>0</u>	<u>450</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		0	
Program Funds.....		0	

ABSTRACT - The Research Awards Program finances special research projects which cannot be supported from the regular budgets of the bureaus. Since 1966, 240 proposals have been funded through this program, and more than 200 publications which are directly related to the research have been produced. No program fund increase is being requested for FY 1975.

PROGRAM - Prior to FY 1966, the Smithsonian Institution received funds from the National Science Foundation (NSF) for special research projects of individual staff members. In 1964, the Congress prohibited the NSF from making grants for scientific research to other Government agencies. The NSF instituted a further limitation that it would no longer make grants to any agency or institution receiving direct Federal appropriations. The Research Awards Program was begun in FY 1966 by an appropriation of \$350,000 to the Smithsonian Institution for the purpose of financing new or continuing research projects formerly eligible for support from NSF.

Proposals are submitted each year by members of the Smithsonian Institution staff to support new and innovative research. All proposals have undergone a careful scientific or scholarly review in their respective bureaus before they are reviewed by an advisory committee of scientists from outside the Institution. Projects are selected on the basis of their showing an imaginative and exciting approach to research and scholarship efforts that could not normally be carried out with regularly budgeted departmental funds.

The work supported by the Research Awards Program is often the best of the Institution's productivity and the reason for acquiring professional staff of the highest competence and imagination. Further, the program provides an opportunity for researchers to engage in collaborative field research with colleagues located in other institutions. Many opportunities for participation in expeditions and other field projects would be lost were it not for the Research Awards Program providing funding assistance.

In FY 1974, members of the Smithsonian staff again submitted proposals for funding up to three years in order to provide for better stability, continuity, and planning of research. Of the 64 proposals received for FY 1974 amounting to \$1,630,835, 40 were funded in the amount of \$450,000. It is intended that the program will operate at this level in FY 1975.

OFFICE OF THE SECRETARY

1973 Actual.....\$655,000
 1974 Estimate.....\$654,000
 1975 Estimate.....\$736,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	30	3	33
11 Personnel Compensation.....	508	62	570
12 Personnel Benefits.....	44	5	49
21 Travel & Trans. of Persons..	8		8
23 Rent, Comm. & Utilities.....	17	2	19
24 Printing and Reproduction...	1	5	6
25 Other Services.....	57	5	62
26 Supplies and Materials.....	7	3	10
31 Equipment.....	12		12
TOTAL	654	82	736
<u>Analysis of Increase</u>			
Necessary Pay.....		19	
Support Funds.....		63	

ABSTRACT - The Office of the Secretary is responsible for planning, implementing, and reviewing the progress of all Smithsonian operations. An increase for General Administration is sought for: (1) Two positions and \$55,000 to strengthen the study and review function of Institutional issues in the Office of the Under Secretary and (2) One position and \$8,000 to be used for the implementation of new travel regulations. An additional amount of \$19,000 is being sought for necessary pay.

PROGRAM - The Office of the Secretary is responsible for planning, implementing, and reviewing the progress of all Smithsonian operations. The Office of the Secretary is composed of the immediate Office of the Secretary, the Office of the Under Secretary, the Office of the Director of Support Activities, the Travel Services Office, the Curator of the Smithsonian Institution Building, and the Secretary's Files.

The Travel Services Office, under the direction of the Director of Support Activities, assists official Smithsonian travelers in developing domestic and foreign travel plans, estimating costs, and planning the most economical routing in keeping with Government and Smithsonian Institution regulations.

JUSTIFICATION OF \$63,000 INCREASE (General Administration) - A program assistant and a secretary (\$40,000) in the Office of the Under Secretary are needed to investigate problems and issues for presentation to the Secretary. With the one program assistant provided in the current fiscal year and another transferred from the Management Analysis Office, the Secretary and Executive Committee now have a study group. The additional staff requested will enable the group to work on longer range problems. Other object funds (\$15,000) will provide for equipment rental, consultant studies, printing, supplies, and equipment purchases for the entire Office of the Secretary.

An additional travel clerk (\$8,000) is needed to handle the additional workload which will be placed on the office with the implementation of the Joint Agency Transportation Study's recommendation which will permit automatic payment of airline ticketing charges. Under the new system it is recommended that no more than four Government Travel Requests be issued each month for all trips. However, necessary additional records and controls will be required to process accurately the monthly ticketing report.

OFFICE OF THE GENERAL COUNSEL

1973 Actual.....\$230,000
 1974 Estimate.....\$242,000
 1975 Estimate.....\$295,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	11	2	13
11 Personnel Compensation.....	208	45	253
12 Personnel Benefits.....	18	4	22
21 Travel & Trans. of Persons..	6	1	7
23 Rent, Comm. & Utilities.....	3		3
24 Printing and Reproduction...		1	1
25 Other Services.....	2	1	3
26 Supplies and Materials.....	3		3
31 Equipment.....	2	1	3
TOTAL	242	53	295
<u>Analysis of Increase</u>			
Necessary Pay.....		7	
Support Funds.....		46	

ABSTRACT - The Office of the General Counsel (OGC) is responsible for all Smithsonian legal matters. These legal matters combine those arising from the operations of a university-like, charitable corporation with those common to Government organizations. An increase of two positions (an attorney and a secretary) and \$46,000 is requested to meet General Administration support needs. An additional \$7,000 is being sought for necessary pay.

PROGRAM - The OGC is responsible for the legal matters of more than forty line programs and ten major staff offices and, at the same time, advises the Secretary and the Board of Regents on the administration of the Institution as a whole. The legal problems combine those arising from the operations of a university-like, charitable corporation with those common to Government organizations, and include: the limitations and obligations of Smithsonian operations in relation to the functions, authorities, and regulations of Government entities; legislative review, drafting, and liaison; the uses and restrictions of trust funds; litigation; application of judicial decisions and executive branch directives and regulations; contract negotiation; tort claims and settlements; Federal and State excise, sales, and gift taxes, deductions, and exemptions; patents and trademarks; copyrights; review of transfers by gift, loan, purchase, or bequest; and many areas of international law.

JUSTIFICATION OF \$46,000 INCREASE (General Administration) - Legal review and consultation are essential for all new undertakings, such as the recent acquisition of the Hillwood estate, as well as for the administration of existing programs and operations. While some questions are not complex, the possible legal implications of these, as well as highly specialized problems, demand continuous legal monitoring. The addition of each new facility, program, or operation invariably adds to the base of legal matters to be considered. In addition, the broadening of the Institution's activities has raised new questions in complex legal areas, such as media agreements, trademark sanctions, and questions of court jurisdiction in contract litigation. As a result, the small OGC staff, consisting of four full-time and two part-time attorneys, is not adequate to keep abreast of the constantly increasing workload arising from the public service responsibilities of the Institution. The addition of one attorney and one secretary is therefore requested to help relieve this situation, at a cost of \$42,000. An increase of \$4,000 in support funds for travel necessary to review and counsel operations outside the Washington, D. C. area, for the continued legal education of the staff attorneys through attendance at conferences, and for office equipment and printing is requested.

OFFICE OF THE TREASURER

1973 Actual.....\$ 725,000
 1974 Estimate.....\$ 824,000
 1975 Estimate.....\$1,103,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	36	6	42
11 Personnel Compensation.....	450	91	541
12 Personnel Benefits.....	38	34	72
21 Travel & Trans. of Persons..	3		3
23 Rent, Comm. & Utilities.....	286	144	430
24 Printing and Reproduction...	10		10
25 Other Services.....	30	5	35
26 Supplies and Materials.....	4	1	5
31 Equipment.....	3	4	7
TOTAL	824	279	1,103
<u>Analysis of Increase</u>			
Necessary Pay.....		21	
Other Uncontrollable.....		80	
Support Funds.....		178	

ABSTRACT - The Office of the Treasurer provides financial management assistance and technical services to the Smithsonian. The postage indicia costs for the entire Smithsonian are reflected in this account.

An increase of 6 positions and funding of \$178,000 is requested to meet the following support needs: (1) \$50,000 for increased costs of mailing resulting from rising public correspondence; (2) 6 positions (\$88,000) and support funds (\$14,000) to strengthen accounting efforts; and (3) \$26,000 for payment to the Office of Federal Employees Compensation as authorized by Section 8147 (b) of Title 5, United States Code. An amount of \$21,000 is being sought for necessary pay. An additional amount of \$80,000 is also being sought under the Uncontrollable Increases Section to finance postage rate increases.

PROGRAM - The Office of the Treasurer is composed of the Treasurer's immediate office, the Office of Programming and Budget, the Accounting Division, and the Contracts and Insurance Office.

The immediate Office of the Treasurer provides overall administration for financial planning, budgeting, investment policy, accounting, reporting, and insurance and contracts administration.

The functions of the Accounting Division are: (1) developing, implementing, and maintaining of financial accounting and payroll systems; (2) financial analyses and reporting; and (3) operations, including payroll, voucher auditing and processing, cash receiving and disbursing funds control (with over 1,000 cost centers), certification of payments, and data processing control.

The Office of Programming and Budget is responsible for the planning, formulation, agency-level presentation of estimates to the Office of Management and Budget and the Congress, execution, and review of the Institution's Federal budget. This office also prepares non-Federal budgets for presentation to the Treasurer, Under Secretary, Secretary, and the Board of Regents.

The Contracts and Insurance Office, which is financed with non-Federal funds, is responsible for the administration of contracts and grants from other institutions and agencies and for the administration of risk management programs.

JUSTIFICATION OF \$178,000 INCREASE (General Administration) - The current postage indicia bill is \$240,000. An increase of \$50,000 is requested to meet the higher volume of mail that is expected to be sent in FY 1975. Such correspondence has been increasing steadily in recent years as new bureaus and offices have been added and public interest in Smithsonian activities, collections, exhibits, and research has mounted. This upward trend is now expected to accelerate with the opening of two major units, the Hirshhorn Museum in FY 1975 and the new National Air and Space Museum in FY 1976. The approaching Bicentennial events will mean additional correspondence for many other Smithsonian units.

These same forces are already affecting seriously the workload of the Accounting Division. More than 1,000 separate cost centers are now involved. Despite continuous analyses resulting in improved procedures and efficiency, there is steadily increasing pressure for more such computer programs, simplified forms and methods, improved equipment, and other means of coping with the increasing flow of transactions and the need for more adequate information to manage properly the wide-spread and varied activities of the Institution. To meet these needs, two additional systems analysts are required. Four more clerks are also essential to handle the larger volume of general accounting transactions, payrolls, and specialized financial reporting. To fund these six positions \$88,000 will be needed together with another \$14,000 of support funds for increased supplies and computer work.

Section 8147 (b) of Title 5, United States Code, provides for payments to be made to employees for injuries and to their families in case of death. These payments are made by the U. S. Department of Labor's Office of Employees' Compensation. They bill the agency in August of the next fiscal year. The bills are payable the following July. The Institution's bill in FY 1974 is \$72,000. The bill for FY 1975 is \$98,000. Therefore, a request is being made for the additional \$26,000 to finance this additional cost.

OFFICE OF PERSONNEL ADMINISTRATION

1973 Actual..... \$495,000
 1974 Estimate..... \$521,000
 1975 Estimate..... \$620,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	33	3	36
11 Personnel Compensation.....	454	76	530
12 Personnel Benefits.....	38	6	44
21 Travel & Trans. of Persons..	1		1
23 Rent, Comm. & Utilities.....	6		6
24 Printing and Reproduction...		5	5
25 Other Services.....	18	10	28
26 Supplies and Materials.....	4		4
31 Equipment.....		2	2
TOTAL	521	99	620
<u>Analysis of Increase</u>			
Necessary Pay.....		18	
Support Funds.....		81	

ABSTRACT - The Office of Personnel Administration has the responsibility for formulating policy over a wide range of activities for manpower planning and managerial development. In FY 1975 an increase of three positions and \$81,000 is sought for the following purposes: (1) two personnel management specialists (\$45,000) to assist in special classification and compensation studies and reduce the workload of the current consultants; (2) an additional secretary (\$10,000) to handle clerical matters and allow personnel assistants more time for technical matters; (3) the part-time help of three vocational office trainees (\$10,000) to help alleviate the clerical workload; and (4) support funds of \$16,000 for printing, executive development, training, and supplies. An amount of \$18,000 for necessary pay is also requested.

PROGRAM - The Office of Personnel Administration (OPA) has the responsibility for formulating policy over a wide range of activities for manpower planning and managerial development through employee training, performance evaluation, and labor relations. These programs generally fall into six broad categories: consultant services; career development and training; administration and direction; technical, clerical, and administrative support; recruitment and placement; and staff services. OPA also becomes involved in negotiating union contracts and provides assistance in their administration.

In FY 1974, approximately 40 training classes will be offered as a part of the career development program. OPA will continue to assist the bureaus in developing programs to expand career opportunities for employees with particular emphasis on individuals locked into "dead-end" positions. In addition, new recruitment sources are being developed, including such local contacts as D. C. Manpower, vocational schools, colleges, and universities.

JUSTIFICATION OF \$81,000 INCREASE (General Administration) - The ratio of staffing of the Smithsonian for carrying out personnel functions is one personnel employee per 105 employees serviced. Government agency personnel offices average approximately one personnel employee per 80 employees serviced. The addition of two personnel management specialists (\$45,000) would provide: (1) expertise in compensation and classification to support the consultants and to meet increasing demands for special classification and compensation studies resulting from reorganizations and other management improvement efforts; (2) needed concentration on the

handling of grievance, appeal, and disciplinary cases which are getting special emphasis in the courts; and (3) reduction of the workload of current consultants, permitting a greater responsiveness to employee needs.

The number of personnel actions handled per year has grown to 11,000. The processing of these actions can be greatly facilitated with the addition of a secretary (\$10,000) and funding of \$10,000 for three vocational office trainees (high school students who work four hours per day during the school year and full-time at other times to receive on-the-job training for use after graduation). In addition, these positions would relieve two personnel assistants from clerical duties, enabling them to devote full time to providing technical assistance for the consultants.

Support funds of \$16,000 are needed to print a supervisory handbook, to offer expanded executive development and upward mobility programs (including funds for training programs offered by the Civil Service Commission and the purchase and rental of various training aids) and to replace deteriorating equipment.

OFFICE OF AUDITS

1973 Actual.....\$142,000
 1974 Estimate.....\$150,000
 1975 Estimate.....\$170,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	8	1	9
11 Personnel Compensation.....	131	18	149
12 Personnel Benefits.....	12	2	14
21 Travel & Trans. of Persons..	5		5
25 Other Services.....	1		1
26 Supplies and Materials.....	1		1
TOTAL	150	20	170
<u>Analysis of Increase</u>			
Necessary Pay.....		5	
Support Funds.....		15	

ABSTRACT - The Institution's size, diversity, and variety of funding sources create a large volume of essential auditing assignments. Since its establishment, the Office of Audits has made important contributions to effective management. An increase of one position and \$15,000 will improve the office's capability to reach its goal of a reaudit every five years. An amount of \$5,000 is needed for necessary pay.

PROGRAM - The Office of Audits, established in FY 1970, is responsible for performing all internal auditing functions of the Smithsonian Institution. In order to ensure the utilization of effective management practices, it is the policy of this office to audit all principal programs, including administrative, financial and supporting programs, during each five-year period.

JUSTIFICATION OF \$15,000 INCREASE (General Administration) - With more than fifty operating units, programs, and staff offices, several major appropriation accounts (totalling over \$86 million in FY 1974), and a wide variety of other funds, there is a large volume of auditing to be done. With the current staff of 8 auditors, it will take another three years to complete the first audit cycle of all principal Smithsonian programs. Therefore, instead of reauditing every five years, the office will be on a seven-year cycle. It is estimated that it would take a total of ten auditors to enable the five-year year reaudit program to become a reality. An additional auditor (\$15,000) is requested to help meet this total staff requirement.

OFFICE OF EQUAL OPPORTUNITY

1973 Actual.....\$ 89,000
 1974 Estimate.....\$101,000
 1975 Estimate.....\$104,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	5	0	5
11 Personnel Compensation.....	90	3	93
12 Personnel Benefits.....	8		8
21 Travel & Trans. of Persons..	1		1
25 Other Services.....	1		1
26 Supplies and materials.....	1		1
TOTAL	101	3	104
<u>Analysis of Increase</u>			
Necessary Pay.....		3	
Program Funds.....		0	

ABSTRACT - The Office of Equal Opportunity works to assure equality of opportunity in employment and in all policies and practices of the Institution. Several current programs involve the development and better utilization of the skills of minority employees, an improved communication system for handling grievances, and improvement of women's career advancement opportunities. No program fund increase is being sought for FY 1975. An amount of \$3,000 is being requested for necessary pay purposes.

PROGRAM - The Equal Opportunity Program, established by Executive Order 11246 and further implemented by the "Equal Employment Opportunity Act of 1972," enacted as Public Law 92-261, requires the Smithsonian to conduct a positive action program which will provide true equality in all Smithsonian employment practices. It is the responsibility of the Office of Equal Opportunity to conduct such a program. Three major efforts currently underway include counseling, upward mobility, and the equal employment status of women.

The counselor program provides a channel through which employees may raise questions, discuss grievances, and receive resolutions of problems on an informal basis. This program has trained 23 part-time equal employment opportunity counselors who are permanent employees with other assigned duties. Some 150 persons were assisted in calendar year 1973.

The upward mobility program strives to ensure each employee the opportunity to seek and achieve his highest potential and productivity in employment situations with special emphasis being focused on employees at the lower levels of employment. Innovative ideas concerned with minority group training at the lower grade levels to correct inadequate education are currently being applied in several museum and support organizations. Additionally within the upward mobility program is the overseeing of civil rights compliance with direct assistance programs and contracts and grants to ensure that the recipients practice equal opportunity.

The women's coordinator program functions as the principal advisory service to management on all matters pertaining to the equal employment status of women. In FY 1974 a women's week was held with noted speakers, movies, and career counseling sessions. Guidance and operational overseeing are given to the Women's Council.

OFFICE OF PRINTING AND PHOTOGRAPHIC SERVICES

1973 Actual.....\$625,000
 1974 Estimate.....\$753,000
 1975 Estimate.....\$835,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	37	5	42
11 Personnel Compensation.....	498	69	567
12 Personnel Benefits.....	42	6	48
21 Travel & Trans. of Persons..	1		1
23 Rent, Comm. & Utilities.....	8		8
24 Printing and Reproduction...	20		20
25 Other Services.....	73	7	80
26 Supplies and Materials.....	80		80
31 Equipment.....	31		31
TOTAL	753	82	835

Analysis of Increase

Necessary Pay.....	21
Support Funds.....	61

ABSTRACT - The Office of Printing and Photographic Services is the Institution's central agency for technical advice, guidance, and production in all matters concerning photographic, duplicating, and in-house printing services. The office coordinates photographic and printing activities and projects and supplies technical support to the curatorial, scientific, technical, and administrative staffs. It also provides photographs, slides, and transparencies with lectures to the general public, schools, research foundations, educational publications, other museums, and government agencies. An increase is sought for the following support needs: (1) Photography - 4 positions (\$46,000) to add a scientific photographer, a studio photographer, a color photography technician, and a microfilm technician and additional funds (\$4,000) to purchase necessary supplies and materials and (2) Printing and Reproduction - 1 position (\$8,000) with support funds of \$3,000 to increase in-house printing capability by the addition of a multilith operator. An additional amount of \$21,000 is being sought for necessary pay.

PROGRAM - In July 1973, the Duplicating Section and the Photographic Services Division were combined to form the Office of Printing and Photographic Services. The supervision of the Government Printing Office's Smithsonian plant was also transferred from the Smithsonian Institution Press to the new office. This action combined the in-house reproduction capabilities with the photographic services. The new office offers the following types of support: hot metal letter-press printing, plate making and duplicating, microfilming, photographic copy and restoration, microphotography, macrophotography, catalogue photography, studio and field location assignments, motion picture photography, color and black and white processing, black and white photographic printing, slides and transparency duplication and processing, and exhibits and mural photographs.

Photography production figures for calendar year 1973 are up over calendar year 1972 in the Office of Printing and Photographic Services by the following amounts:

	1972	1973
Total number of jobs requested	7,500	8,000
Studio and location assignments	1,750	1,930
New negatives (including copy negs)	50,000	65,000
Microfilm	500,000	850,000
Black and white prints	200,000	215,000
Color prints	5,000	6,000
Slides and transparencies	30,000	80,000

JUSTIFICATION OF \$61,000 INCREASE:

Photography - The requested FY 1975 increase will be used: (1) to satisfy the many additional requests for support to projects underway and proposed for the Bicentennial; (2) to fulfill requests for the preparation of slides and lectures for educational purposes; (3) to supply photographs for publication and student research projects; (4) to continue preservation of some 30 million valuable documents through the microfilming process; and (5) to relieve the scientists of photographic work, therefore, allowing them more time for their normal research and scientific duties.

There is currently one technician capable of processing color photographs although all the photographers take such pictures. In-house color processing is limited to film 4 inches by 5 inches, and all other color work must be contracted. In the next several months, equipment necessary to process 35mm slides will be installed. A new technician (\$11,000) is required to assist in the operation of the color processing equipment.

There are currently two microfilm technicians who are capable of producing 850,000 microfilm negatives per year. With a new microfilm operator (\$8,000) and supplies (\$4,000), this production could be expected to go up to 1,275,000. Even at this rate it will take 23 years to microfilm the 30,000,000 documents already on hand that are considered of legal or historical value.

Most of the photographic assignments are carried out in the photographic studios located in the major exhibition buildings, as standard museum practice does not allow valuable specimens to be moved out of the building to other locations. This is to prevent deterioration by improper handling, changes in environment, or loss. There are three photographic studios under the jurisdiction of this office. One is located in the History and Technology Laboratory, one in the Natural History Building, and one in the Arts and Industries Building. There are currently three studio photographers. An additional photographer (\$11,000) is requested to be assigned to studio work to keep the laboratories operational during vacations and to provide for peak work loads.

Photography is an integral part of some scientific work. In order to relieve the scientists of this work and to add the photographic expertise, a scientific photographer (\$16,000) is requested. In one bureau it is estimated that 8 man-years were spent by the scientists doing scientific photography in connection with their research studies. Not all this work can be performed by a photographer, but much of it could be accomplished if another photographer were available.

Printing and Reproduction - The Smithsonian Institution currently has two types of in-house printing capability--linotype and duplicating. The linotype presses and printers are provided by the Government Printing Office on a reimbursable basis. The duplicating of official memoranda, budget justifications, some leaflets, and news releases is accomplished in the duplication section. An additional multilith operator (\$8,000) with support funds of \$3,000 is requested to enable this unit to respond to requests from all Smithsonian offices and bureaus.

INFORMATION SYSTEMS DIVISION

1973 Actual..... \$319,000
 1974 Estimate..... \$381,000
 1975 Estimate..... \$463,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	18	4	22
11 Personnel Compensation.....	331	65	396
12 Personnel Benefits.....	27	5	32
21 Travel & Trans. of Persons..	1	1	2
23 Rent, Comm. & Utilities.....	9	3	12
25 Other Services.....	8	6	14
26 Supplies and Materials.....	3		3
31 Equipment.....	2	2	4
TOTAL	381	82	463
<u>Analysis of Increase</u>			
Necessary Pay.....		11	
Support Funds.....		71	

ABSTRACT - Computer specialists, mathematicians, and support personnel of the Information Systems Division (ISD) participate in the development and application of mathematical techniques such as statistical analysis, mathematical modeling, data reduction and cluster analysis, for research projects and automated administrative and collections management systems. An increase of 4 positions and \$71,000 is requested in FY 1975 to meet the following support needs: (1) one additional mathematician (\$16,000) and support funds (\$3,000) to meet an increasing demand for mathematical and statistical analysis assistance by curators and researchers in the areas of historical, biological, chemical, and geological research; and (2) two computer specialists and 1 software specialist (\$42,000) and support funds (\$10,000) to permit continued development of the SELGEM system, including user procedures and systems documentation, for current and projected needs. An additional amount of \$11,000 is requested for necessary pay.

PROGRAM - The ISD was established in 1966 so that the Institution could take advantage of computer technology. Computer specialists, mathematicians, and support personnel work with curators, historians, scientists, and management personnel to apply mathematical techniques to research problems and to develop automated administrative and collection management systems. Initially, the Division's work concentrated largely on management support functions. Over the past four years, however, approximately 75% of the Division's resources have been expended in support of research and collection management as a better understanding of the computer's potential has evolved. Work by ISD has contributed to producing data that have been or will be published in approximately 80 scientific publications.

Presently scientific and collections management computer programs are being developed that can be utilized in several areas with minor modifications to reduce development costs. The Division maintains a computer program library containing 350 active programs and is currently serving researchers, curators, and administrators throughout the Institution. The SELGEM (Self-Generating Master) system has been distributed to 23 universities, government agencies, and other museums. Placing a minimal value for the system to a user of \$30,000 indicates assistance valued at about \$700,000 has been provided to external organizations doing research or collections management in various areas.

JUSTIFICATION OF \$71,000 INCREASE (Automatic Data Processing)

Scientific Research Applications - An increasing demand for mathematical and statistical analysis assistance by curators and researchers in the areas of historical, biological, chemical, and geological research has placed current resources under a constant strain. Seven departments in the National Museum of Natural History (NMNH) and 10 other bureaus are major users of these resources. Projects vary from the application of mathematical/statistical techniques to solve day-to-day research needs, to reducing large quantities of data from the electron microprobe equipment, to portraying research information in a graphic form.

Based on an accumulation of data from weekly status reports and customer correspondence/contact, it is estimated that a mathematician can complete approximately two mathematical projects per month. Present staffing includes one manager and two mathematicians. It is estimated they will be able to complete 72 projects in FY 1974, resulting in a backlog of approximately 40 projects. (Backlogged projects will include mathematical assistance to scientists doing ecological research at the Chesapeake Bay Center, animal behavior analysis for the National Zoological Park, taxonomic classification studies, and programmed research for the various departments in NMNH.) Eighty-three new projects will be developed in FY 1975. Additional staffing of one mathematician (\$16,000) and support funds of \$3,000 for equipment, supplies, training, and computer time will reduce the projected FY 1975 backlog to 27 projects.

Collections Management Workload - In FY 1975 the Smithsonian's main Collection Management System, (SELGEM), which has aroused interest throughout the museum world for its potential as a standard for the computerized management of collections, will be developed further and applied throughout the various museums to provide automated retrieval and indexing of data pertaining to the national collections. Expected results will benefit the professional staff by providing catalogues, cross-referencing indices by categories, better inventory control, and a future vehicle for responding to non-technical queries by the general public. Automated files now permit curators, researchers, and scientists to analyze and interpret their data in ways that were impossible with manual files. The system also allows for economical means of exchanging data via magnetic tape without physically transporting specimens or visiting other locations.

Presently a staff of 4 computer specialists devotes full time to systems analysis, computer programming maintenance, documentation, and customer liaison in the collections management area. In FY 1974 such work has been requested for 30 different collections, and in FY 1975 it is predicted that work will be started on 40 new collections.

From past experience it is estimated that 30 to 35 percent of a computer specialist's time is devoted to continued maintenance and liaison once a project is considered in production. Presently 93 various collections have been automated in the science, history, and art areas, and 40,000 to 45,000 records are entered monthly into various collection management systems. By FY 1977 it is estimated 90,000 to 95,000 records will be entered monthly. All items in the National Collections will not be automated and initial preference is being given to those areas which are considered more important for research and/or historical purposes.

During FY 1974 no new SELGEM program development can be provided and program maintenance capability will be one-half of the requirement for the system which will result in a one and one-half man-year backlog. User procedures and systems and programming documentation equivalent to one-half man-year are also being delayed. Staff

resources previously assigned to this area are now assisting individual curators with current needs. The administrative application area which includes all other areas using ADP, such as payroll, personnel, accounting, library, and supply continue to expand as the Institution grows and no resources can be diverted from this area. For FY 1975, in addition to the 2 man-year SELGEM backlog, approximately 14 new collections will have to be delayed. Staffing of 2 additional computer specialists and 1 software specialist (\$42,000) and support funds of \$10,000 for equipment, supplies, training, and computer time, will be required in FY 1975 to reduce this growing backlog.

SUPPLY DIVISION

1973 Actual.....\$392,000
 1974 Estimate.....\$450,000
 1975 Estimate.....\$503,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	23	2	25
11 Personnel Compensation.....	300	28	328
12 Personnel Benefits.....	26	2	28
21 Travel & Trans. of Persons..	2		2
23 Rent, Comm. & Utilities.....	10		10
25 Other Services.....	17		17
26 Supplies and Materials.....	90	23	113
31 Equipment.....	5		5
TOTAL	450	53	503
<u>Analysis of Increase</u>			
Necessary Pay.....		13	
Support Funds.....		40	

ABSTRACT - The Supply Division is responsible for procuring supplies, materials, contractual services, and equipment for research, curatorial, exhibit preparation, and other Smithsonian activities. In order to respond effectively to overall growth within the Institution, an increase for General Administration of two stock/property clerks (\$17,000) and \$23,000 for stockroom supplies is requested. An additional \$13,000 is being sought for necessary pay.

PROGRAM - The Supply Division procures supplies, materials, contractual services, and equipment for research, curatorial, exhibit preparation, and other Smithsonian activities. It stocks and issues office, laboratory, and other supplies required in daily management operations. It operates a property management program, obtaining excess property in lieu of new procurement whenever possible. The Division maintains property records and requires periodic inventories to insure adequate control and utilization of equipment items.

JUSTIFICATION OF \$40,000 INCREASE (General Administration) - The Division's workload of purchase orders, contracts, imprest fund uses, and other transactions associated with operating funds and construction projects continues to increase with the overall growth in Smithsonian programs. Property management and supply requirements will soon be further increased by equipping the new National Air and Space Museum. To maintain an effective level of efficiency, an increase of two stock/property clerks (\$17,000) is requested.

The Supply Division maintains a central stock room. Office and laboratory supplies that are common to most offices of the Institution are stocked for issue to requesters. Although this arrangement permits economy through bulk purchasing, the Division's ability to sustain needed inventory is continually eroded by steadily rising costs--a situation which is further aggravated by the increasing size and complexity of the Institution's operations. An increase of \$23,000 for the purchase of supplies is requested to permit the maintenance of an adequate inventory.

MANAGEMENT ANALYSIS OFFICE

1973 Actual.....\$192,000
 1974 Estimate.....\$203,000
 1975 Estimate.....\$225,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	11	1	12
11 Personnel Compensation.....	174	20	194
12 Personnel Benefits.....	14	2	16
21 Travel & Trans. of Persons..	1		1
23 Rent, Comm. & Utilities.....	1		1
24 Printing and Reproduction...	1		1
25 Other Services.....	7		7
26 Supplies and Materials.....	1		1
31 Equipment.....	4		4
TOTAL	203	22	225
<u>Analysis of Increase</u>			
Necessary Pay.....		7	
Support Funds.....		15	

ABSTRACT - The Management Analysis Office (MAO) performs a wide range of general management staff assistance and advisory services related to museum, research, and support operations in the Smithsonian. In order to meet the increased workload caused by the growth of the Institution, one additional management analyst is requested in FY 1975 at a cost of \$15,000. Necessary pay in the amount of \$7,000 is also sought.

PROGRAM - MAO performs management studies and analyses. It develops, recommends, and implements effective business administration and management improvement programs. It provides management advisory services; makes studies and special surveys; develops organizational, functional, staffing, and flow charts; prepares procedural manuals; and manages administrative issuances and forms management programs.

JUSTIFICATION OF \$15,000 INCREASE (General Administration) - The MAO operates along the following functional lines: management analysis, forms control, and administrative issuances. Three employees are involved in the design, production, and control of forms. Many new forms are proposed each year. These are consolidated whenever possible. The use of computers has added greatly to the complexity of forms. Two employees are responsible for the issuance of directives and announcements. These employees are also responsible for editing agency material in the Catalog of Federal Domestic Assistance, and other Government publications. The balance of the staff is available for management studies. In FY 1974 this staff is expected to complete and issue the following handbooks: Purchasing; Time and Attendance; Correspondence; and Travel. They will also be working with the Photographic and Printing Services division on developing production reports, with the Office of Plant Services on an authorization of motor vehicle use for official business, and with Protection Services on a self-defense plan for guards. But with this limited staff some management studies and surveys are backlogged, such as studies and analyses of Smithsonian's current system of delegation of authority, requisitioning procedures for printing and duplicating services, and acquiring and using photo-duplicating equipment. An additional analyst is needed to help to eliminate this backlog (\$15,000).

OFFICE OF PROTECTION SERVICES

1973 Actual.....\$3,965,000
 1974 Estimate.....\$4,415,000
 1975 Estimate.....\$5,363,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	400	82	482
11 Personnel Compensation.....	3,847	706	4,553
12 Personnel Benefits.....	327	61	388
21 Travel & Trans. of Persons..	5		5
23 Rent, Comm. & Utilities.....	3		3
24 Printing and Reproduction...	3		3
25 Other Services.....	202	79	281
26 Supplies and Materials.....	21	57	78
31 Equipment.....	7	45	52
TOTAL	4,415	948	5,363
<u>Analysis of Increase</u>			
Necessary Pay.....		209	
Support Funds.....		739	

ABSTRACT - The Office of Protection Services (OPS) is responsible for the protection, security, health, and safety functions of the Institution. An increase of \$739,000 and 82 positions is requested to enable this office to fulfill its responsibilities in six major areas. These areas are: (1) National Air and Space Museum - 30 guards (\$63,000) and support funds of \$39,000 to provide adequate security during initial occupancy; (2) Health Program - a full-time medical officer and a nurse (\$36,000) to meet needs occasioned by rising visitor levels; (3) Plainclothes Operations - 13 additional positions (\$118,000) to increase crime deterrence in the major museums and assist in criminal investigations; (4) Overall Protection and Support - 33 positions (\$287,000), including 10 supervisors, 22 guards, and 1 training officer, and support funds of \$78,000 to provide adequate protection coverage for new exhibitions and facilities; (5) Fire Prevention and Inspection - 3 positions (\$41,000), a fire safety engineer and 2 fire inspectors, to provide a comprehensive program of fire safety engineering and safety inspections; and (6) Burglar and Fire Protection and Detection Systems - an electronics technician (\$13,000) to service and maintain electronic protection and detection equipment and \$64,000 for a phased conversion from the use of leased systems to Institution-owned systems. Funding for necessary pay of \$209,000 is also requested.

PROGRAM - OPS is responsible for the protection, security, health, and safety functions of the Institution. The present protection staff of 360 guards and guard supervisors provides physical security for the Smithsonian museums, art galleries, warehouses, and the property housed therein (excluding the National Zoo which has its own police force). A recent action taken to increase responsiveness to the guarding of collections is the assignment of the elevator operators to this office. The responsibility of the operators is very important to internal security since, in almost every instance, access to the upper, non-public levels of the museums is only by elevators. The doors on stair landings are locked with access only from within the floors, not from the landings.

The protection and security of the Smithsonian's collections, exhibits, facilities, visitors, and staff are of high priority. Additional guard coverage in calendar year 1973 has enabled the force to be more responsive, resulting in a decrease in the crime-rate growth experienced in previous years. The number of misdemeanors and

felonious incidents increased in 1973 to 293. This represents an increase of 61 as compared to the increase of the previous year of 110. The percentage of recovery of stolen articles rose from 20 percent to nearly 50 percent; 46 recoveries as compared to 143. The increase of misdemeanors and incidents can be attributed to such factors as the dramatic growth in the number of visitors; the increased scope, variety and value of the exhibits; and the mounting volume of collections.

The health and safety unit works closely with the guard force. Because of their accessibility the guards are first contacted when an accident, fire, or other incident occurs. Over 325 such incidents were handled last year. Vandalism (13 percent of total crime), truancy cases, and special non-criminal investigations are further examples of the kinds of incidents handled by the Protection division.

JUSTIFICATION OF \$739,000 INCREASE (Protection):

National Air and Space Museum - The OPS will be required to assume responsibility for protecting the new National Air and Space Museum during the last quarter of FY 1975. The 30 positions (8 man-years) (\$63,000) represent the initial guard increment required to protect the Museum. A total of 85 positions will be required when the Museum opens to the public in FY 1976. Support costs (\$39,000) cover purchase and maintenance of uniforms, radio equipment, and setting up a security office in the Museum.

Health Programs - The Smithsonian currently employs a physician on a part-time contract basis. A full-time doctor and additional nurse (\$32,000) are required to enable the Smithsonian to conduct a health program to serve staff and visitors who may become ill or injured. The new Hirshhorn Museum currently has space for a health facility which would also serve other buildings now on this side of the Mall. The funds requested here would provide one nurse; an additional part-time nurse could be employed with the funds currently being used to pay the part-time doctor. These nurses would be assigned to the Hirshhorn. Funds requested include equipping the space for a health unit (\$4,000).

Plainclothes Operations - An experimental plainclothes squad (using existing guard employees) went into operation on July 1, 1973, with a six-man force. Scheduling was such that four officers were assigned daily to operate in each major facility. During this period, the squad was responsible for the apprehension of over 240 suspects on charges ranging from destruction of exhibit material to robbery and sex-related offenses. The plainclothes squad's mission is to deter visitor-related crimes. Proof of their success, stemming from the maneuverability of the force, lies in the reduction of robberies from 29 in the first six months of 1973 to 8 in the last six months. A study revealed that museum facilities were widely used as havens for area school truants. A program of identifying these juveniles and seeing that they are returned to their schools has contributed to a reduction of one-third (36 to 24) in public area larcenies during the squad's operational period.

In addition to regular assignments, plainclothesmen have provided security support for dignitaries requiring personal protection while touring Smithsonian facilities. Additionally, they have been instrumental in solving many reported offenses through preliminary investigations conducted at the crime scene. This is responsible in great part for the nearly 50 percent clearance rate in calendar year 1973. With the reluctance of visitors to cooperate in prosecutions and, in many cases, even to report an offense committed against them, a plainclothes operation is the only successful measure found to deter criminal acts. The 13 additional positions (\$118,000) requested will enable ten men to be assigned to the major museums, including the Hirshhorn.

Overall Protection and Support - The guards in exhibition areas are subjected to many demands for attention. An independent consultant's report for the Smithsonian stated that guards were distracted by one out of every three visitors making inquiries or seeking directions. In addition, guard response to local alarms at exhibitions further reduces the area to which he can devote his full attention. Additional guards and guard supervisors and a training officer (\$287,000) are necessary to provide adequate security for highly sensitive areas, such as the numismatic and mineralogy collections; new halls, galleries, and exhibitions which have recently opened or are to be opened to the public, such as, the two exhibits, "It All Depends" and "Ice Age Mammals and the Emergence of Man" in the Museum of Natural History, a gallery of portrait miniatures in the National Collection of Fine Arts, and the entire third floor mezzanine exhibit area of the National Portrait Gallery.

The number of guard posts required is determined by the value of the property exhibited or stored, the vulnerability to theft or vandalism, the effective field of vision of the guard, and the extent to which detection/protection devices are present. Of the 281 guard posts which have been determined, only 200 are currently being manned. The 81 unmanned guard posts are equivalent to 135 man-years. The 33 positions (\$287,000) requested would help to narrow this difference. In addition support funding of \$78,000 is sought for uniform and equipment purchases and maintenance, training aids, and contractual courses for guard training.

Fire Prevention and Inspection - A serious fire during FY 1973 at the Belmont Conference Center reinforced the need for a comprehensive program of fire safety engineering and safety inspections. Three positions and \$41,000 are requested to fill this need. Currently, there is only one fire inspector to cover all the buildings of the Smithsonian. He only has time to check fire extinguishers and obvious problems. Capability is needed during the design stages for new major construction as well as for exhibition construction to ensure that fire safety aspects receive full consideration and implementation. Continuing fire safety inspections are necessary for facilities on or near the Mall and at such sites as Hillwood, Belmont Conference Center, Chesapeake Bay Center, and Anacostia Neighborhood Museum.

Burglar and Fire Protection and Detection Systems - The OPS has no internal capability for maintaining the electronic equipment and systems installed in the various Smithsonian locations. Maintenance and service personnel of outside companies must be relied upon, and response to service calls is not immediate. The cost of this outside maintenance amounted to nearly \$175,000 in FY 1974. One additional position (\$13,000) is requested for an electronics technician to service and maintain electronic protection and detection equipment. The support cost requested (\$64,000) will be used for the first phase of the conversion from leased, externally-maintained equipment and systems, to an Institution-owned system with centralized control and reporting. This first phase will include the upgrading of communications systems equipment, the replacement of out-dated systems, and the consolidation of the various individual control rooms into one control center. It is expected that the conversion to a proprietary system would take five years. The initial experimental stages will enable the Institution to gather information on the total savings versus the cost of the change-over.

OFFICE OF FACILITIES PLANNING AND ENGINEERING SERVICES

1973 Actual.....\$390,000
 1974 Estimate.....\$433,000
 1975 Estimate.....\$554,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	20	3	23
11 Personnel Compensation.....	381	41	422
12 Personnel Benefits.....	33	4	37
21 Travel & Trans. of Persons..	1	1	2
25 Other Services.....	13	75	88
26 Supplies and Materials.....	2		2
31 Equipment.....	3		3
TOTAL	433	121	554
<u>Analysis of Increase</u>			
Necessary Pay.....		10	
Support Funds.....		111	

ABSTRACT - The Office of Facilities Planning and Engineering Services (OFPE) is responsible for planning, design, coordination, and supervision of construction, modification, and repair work. An increase of 3 positions and \$111,000 is sought for Building Management support. The positions and funds in the amount of \$36,000 will provide for an engineer/estimator to assist in project development and cost estimating and 2 construction inspectors to oversee contract work. An amount of \$75,000 is requested to continue program studies and to perform preliminary site planning for the National Museum Support Facility. An additional \$10,000 is sought for necessary pay.

PROGRAM - OFPE is responsible for planning, architectural and engineering design and preparation of specifications, coordination, and supervision of construction projects. OFPE is a newly formed organization which was part of the Buildings Management Department. The separation of this unit from day-to-day responsibilities for operations of buildings enables more time and attention to be given to these specialized services.

JUSTIFICATION OF \$111,000 INCREASE (Buildings and Facilities Management) - With the large number of buildings owned or occupied by the Smithsonian and with several buildings being over 75 years old, the range of repair, renovation, and rehabilitation projects is enormous. Examples of work currently underway are the air conditioning and renovating of the Arts and Industries Building (93 years old), library space in the Natural History Building, and preparation of space for conservation purposes in the History and Technology Building.

An engineer/estimator (\$16,000) is needed to provide critical skills to the facilities planning process. No one currently on the staff is available to perform the critical job of estimating costs on a full-time basis. In order to prepare a realistic estimate of construction costs the estimator must keep up with various cost factors in the construction trade. With the difficulty of such projections at the best of times, in these times of rapid price increases it is especially difficult. This is a very important request in order to insure sufficient funds are requested for a particular job.

Two construction inspectors (\$20,000) are needed to assist in overseeing the work being performed under contract. Currently there are 20 projects underway totaling \$5 million. There are two inspectors currently on the staff, but because of the number of small jobs that are undertaken, additional personnel are requested. It is

not unusual for a large job, like the air conditioning of the Arts and Industries Building which will take two years, to require the full time of at least one inspector while the job is underway.

An appropriation of \$75,000 is required to continue studies and site planning for the proposed Smithsonian National Museum Support Facility. In 1969 the Regents of the Smithsonian Institution recognized that the natural, but inevitable, growth of the national collections in science, history, and art had crowded the Mall museum buildings to the extent that public exhibition space was being used for the research collections and that, in spite of this, the collections were so crowded that research and the essential services provided by the collections were impeded. The Regents agreed that the development of a museum support facility was needed to maintain the use of the Mall buildings for public exhibition and public services, at least at the level for which they had been built.

The funds requested are required to continue the analysis of the essential museum functions which can be performed away from the central buildings, for the determination of priorities of need, and to make analyses and study plans for suitable government-owned land under consideration.

OFFICE OF PLANT SERVICES

1973 Actual.....\$ 7,733,000
 1974 Estimate.....\$ 8,965,000
 1975 Estimate.....\$10,907,000

(Dollars in thousands)	Base FY 1974	Increase Requested	Est. FY 1975
Number of Permanent Positions..	529	85	614
11 Personnel Compensation.....	4,610	880	5,490
12 Personnel Benefits.....	390	73	463
21 Travel & Trans. of Persons..	4		4
23 Rent, Comm. & Utilities.....	2,480	907	3,387
24 Printing and Reproduction...	4		4
25 Other Services.....	872	10	882
26 Supplies and Materials.....	498	19	517
31 Equipment.....	107	53	160
TOTAL	8,965	1,942	10,907
<u>Analysis of Increase</u>			
Necessary Pay.....		412	
Other Uncontrollable.....		830	
Support Funds.....		700	

ABSTRACT - The Office of Plant Services (OPLANTS) provides essential services related to the physical maintenance and operations of nine major buildings as well as 26 smaller buildings or facilities located in the Washington, D. C. area.

In FY 1975 an increase of \$700,000 is requested to meet the following support requirements in Buildings Management: (1) 31 positions, approximately 6 man-years, (\$73,000) for initial staffing of the new National Air and Space Museum and funds in other objects (\$120,000) for related expenses; (2) 44 positions (\$377,000) are sought to bring the custodial and mechanical forces closer to their required strength, and support funds (\$24,000) for supplies, contracts, and equipment; (3) 6 positions (\$60,000) and support funds (\$10,000) to extend the horticultural services program to the Hirshhorn Sculpture Garden and Courtyard, as well as adding to the core team who are responsible for 75 acres of grounds, plantings, and park areas; (4) 3 positions (\$24,000) and a truck (\$5,000) to establish an inter-building moving team; and (5) 1 position (\$7,000) to extend the mail/messenger service to the new building. An amount of \$412,000 is requested for necessary pay. An additional \$830,000 for space rental is being requested in the Uncontrollable Section. (See page A-6.)

PROGRAM - OPLANTS is responsible for the day-to-day operation of the Smithsonian's physical plant located in the Washington, D. C. area. The range of services includes trade and craft assignments, custodial and labor services, operation of temperature and humidity control units, transportation, communications, minor repairs and alterations to buildings, moving and rigging services, landscaping and grounds maintenance, and mail/messenger service. OPLANTS employs trade and craft personnel such as masons, cabinetmakers, glaziers, painters, and electricians who contribute their skills in support of research activities, exhibitions, and other public events. The Buildings Management Department used to be responsible for other aspects of buildings' maintenance and operation, including their protection. In FY 1973, the Office of Protection Services was established to be responsible for protection and security of buildings. Further organizational changes have taken place to improve the effectiveness of operations and to make various buildings management-type functions more responsive to program requirements. For instance, the elevator operators have been placed under the jurisdiction of the Office of Protection Services to strengthen

that office's ability to control access to non-public areas. Planning and design, engineering, architectural, and construction supervision functions have been concentrated in a new Office of Facilities Planning and Engineering Services to permit more effective development, review, and management of alteration, renovation, and construction projects. Custodial and labor forces, under the supervision of a building manager, have been assigned for administrative management to the museum and office directors that have immediate responsibility for the condition of their buildings which receive 15 million public visits each year, as well as use by employees, visiting researchers, and students. The museums and facilities affected are the National Museum of Natural History, National Museum of History and Technology, Fine Arts and Portrait Galleries, Freer Gallery of Art, Hirshhorn Museum and Sculpture Garden, National Air and Space Museum, Smithsonian and Arts and Industries Buildings, and several outlying areas occupied by the Smithsonian.

JUSTIFICATION OF \$700,000 INCREASE:

National Air and Space Museum - The National Air and Space Museum is scheduled for occupancy in the latter part of FY 1975. Although the public opening will not be until July of 1976, many initial services must be provided by OPLANTS in FY 1975. They include the installation of special equipment; the operation and maintenance of heating, air-conditioning and humidity control systems; extensive moving and rigging services; and cleaning and labor services.

An initial staff of five mechanics, one electrician, and 25 custodians and laborers (about six man-years, \$73,000) is sought to provide these essential services. Funds are also requested for related expenses such as utilities and communications, miscellaneous contract services, custodial supplies and materials, and cleaning and maintenance equipment (\$120,000).

Custodial and Mechanical Maintenance - Custodial and labor personnel provide services for approximately 3,656,000 square feet of floor area. These employees provide many special services requested in connection with public activities and educational programs during regular hours, at night, and on weekends and holidays. Cleaning operations encompass collection areas, offices, restrooms, workrooms, laboratories, and exhibit areas. Primary consideration has been placed on cleaning public areas which comprise about 60 percent of the total net floor area. Work frequency rates are considerably higher in these public areas, and special care must be exercised because of valuable museum objects.

Cleaning standards have been developed which show manpower requirements to sustain adequate levels of performance. The financial resources required to bring a reasonable balance between workload requirements and staffing needs have fallen consistently short. Increased demands for services, including moves of furnishings, equipment, and collections and the addition of more exhibit areas, have strained the capability of existing custodial and labor forces. Some non-public areas requiring attention are being neglected because limited personnel must be diverted to public areas. In an effort to correct these growing deficiencies, \$300,000 is sought for 37 positions. These will be used in the following buildings: National Museum of Natural History, 10; National Museum of History and Technology, 7; Fine Arts and Portrait Galleries, 8; Hirshhorn Museum, 6; and others, 6.

Additional air-conditioning, heating, and lighting systems for all Smithsonian buildings, as well as increasing numbers of visitors and exhibit spaces have resulted in greater demands on trade and craft personnel. Two additional electricians, three mechanics, and two painters will help insure preventive and corrective maintenance, and relieve backlog situations (\$77,000). Support funds of \$24,000 are requested for necessary supplies, increases in contractual services, and the replacement of irreparable equipment.

Horticultural Services - A horticultural program has recently been established which is intended to provide maintenance to 75 acres of grounds, planting, and park areas; development of a recording, labeling, and accessioning system; interior plantings, and development of a greenhouse operation to serve plant requirements. Additional demands will be levied by the Hirshhorn Sculpture Garden and Courtyard which is expected to open in the fall of 1974. This addition to the Smithsonian's museums will require a high degree of maintenance because of its public use. Intense efforts are underway to bring several projects to completion by 1976 to coincide with the Bicentennial. An additional 6 gardeners and helpers (\$60,000) are requested plus funds necessary to acquire plant materials and equipment needed to sustain established projects (\$10,000).

Establish Inter-Smithsonian Moving Force - The Smithsonian has no moving force with a truck for inter-Smithsonian movement of items from the national collections. A very unsatisfactory and potentially unsafe practice exists of moving valuable objects with separate labor crews in each museum and a separate truck and driver. A study by all Smithsonian museum registrars has established the need for a trained force as a high priority item for safe movement of collections. Two moving clerks and a driver (\$24,000) and a truck (\$5,000) are requested for this purpose.

Increase Mail Service to Accommodate Hirshhorn and Increased Demand - An increase of one mail clerk (\$7,000) is requested to improve the pick up and delivery of mail to Smithsonian's offices on and away from the Mall.

INCREASE FOR NECESSARY PAY

Mrs. HANSEN. A total of \$1,856,000 is programed for necessary pay increases. Describe for the committee just what this involves, and how you arrived at the total pay increase sum being requested?

Mr. JAMESON. This \$1,856,000 which is explained in some detail on page A-5 of our budget justification was arrived at by our doing worksheets on each position that is authorized for the Smithsonian with particular emphasis on those people who are currently on board and those people who will soon be on board. We offset the apparent cost of such things as annualizing the general schedule and wage board pay raises and the within-grade by departures that we know will be occurring and normal lapse in the Smithsonian, so what we attempt to present to you is a very accurate cost reflection of what those costs will be in the budget year.

Two of the items are for the annualization of a portion of the pay supplemental that is now before your committee. One item is for within-grade step increases for general schedule employees and periodic increases for wage personnel.

Then there is an additional work day in fiscal 1975. Considering all these factors, we look at each position and calculate our requirements on a position-by-position analysis.

JUSTIFICATION FOR ADDITIONAL PERMANENT POSITIONS

Mrs. HANSEN. You are requesting an additional 352 permanent positions, to bring the 1975 total up to 3,232. What are the factors that necessitate this large increase?

Mr. RIPLEY. I think Mr. Brooks could summarize that.

Mr. BROOKS. Of the 352 new positions requested, 84 are for the new National Air and Space Museum, including 23 for the museum staff, 30 new guard positions, and 31 custodial and maintenance positions.

The other 268 are, as the Secretary mentioned, for support personnel in a number of high priority areas. It includes 43 new jobs in the registration, conservation, and automatic data processing areas, 55 new positions in the library area.

Mrs. HANSEN. To what do you attribute the necessity to increase that?

Mr. BROOKS. It is essentially that this area, as well as our other support areas, Madam Chairman, has lagged behind the program growth that the Smithsonian has enjoyed in the past few years. We are in a situation where we need, in order to continue our services to the public and the professional staff, to have conservation of objects, documentation of materials, and professional staff support.

EFFECT OF CONGRESS' FAILURE TO PASS EXECUTIVE PAY RAISE

Mr. YATES. Dr. Ripley, is your staff being decimated at all by the failure of Congress to pass the executive pay raise? I know you have so many experts working for the Smithsonian. I know that several of them are bumping against the ceiling.

Mr. RIPLEY. We have a large group that is sort of impacted, that is, everybody has gotten to the same general scale of pay. I am not sure

to what extent we are losing people at this stage. Perhaps some of my colleagues would have a comment from personal experience.

Mr. BLITZER. I think one problem that we already have some inkling of is the difficulty in recruiting people. I think our people on the whole are very happy; and, although they are not happy about what happened to their pay, they like the jobs they are doing. I think recruitment may be very hard. We compete with universities, other major museums, and laboratories, for these people.

Mrs. HANSEN. Give us an example in a university; take a top-flight academic person. What would be his scale of pay and what is your scale of pay for the same kind of person?

Mr. BLITZER. I can give you one example that came up within the last year of a senior position we were trying to fill. We were seriously interested in a dean from a university, within 100 miles of here, I will say. I don't remember the exact figures but his salary for a year was, I think, something like \$44,000 or \$45,000. That was for a 9-month-year rather than our 11-month year. He had fringe benefits such as tuition for his children and things of that sort. The most we could offer him was \$36,000.

Mr. YATES. Do colleges pay that price?

Mr. RIPLEY. Yes.

Dr. CHALLINOR. We were recruiting for a director for one of our major museums and had an excellent candidate at a northern university, another dean, \$41,000-per-year, plus free tuition, in this case for 3 college-age children. We could not come anywhere close to that with the \$36,000 we are allowed to pay the director of our museum.

FRINGE BENEFITS AND PENSION PROGRAMS AT UNIVERSITIES

Mrs. HANSEN. Also your average university has other fringe benefits such as participation in social security. When people come to the Government their social security is not continued unless they are under the wage board.

Isn't this correct?

Mr. YATES. You have your own pension program.

Mrs. HANSEN. That works if you survive here for a large number of years. Your universities have their own pension program, which you have to drop when you come here; and, if you are in the senior category, you probably aren't going to have enough years in to have a substantial amount of a pension unless you have a high wage base.

Isn't this part of the problem, Mr. Blitzer?

Mr. BLITZER. Correct.

Mr. RIPLEY. This is true and, of course, there may be incremental housing benefits in some of the universities, that is, they can have a low rent house for themselves and their families. This, of course, we cannot supply.

Mr. BLITZER. Madam Chairman, may I presume to suggest that you ask the director of the Woodrow Wilson Center about this when you see him today, because he is wavering between remaining at Princeton where he is a professor and staying at the Woodrow Wilson Center after his test year. He wants to stay but it is a problem.

Mrs. HANSEN. I think very few people in the general public understand the difficulties of acquiring the kind of personnel that you need in the top positions in many agencies with this salary limitation and with the things that they must give up if they come from either the private sector or the university sector, be it private or public university.

Mr. RIPLEY. It was thought in past days, Madam Chairman, that there was a quality of idealism to taking on a public service job. I am not sure that that idealism is so apparent these days.

Mrs. HANSEN. It is difficult when you have to pay three times as much in Washington, D.C., to live as you do in almost any other place in the Nation.

Mr. RIPLEY. This is my impression.

GSA SPACE RENTAL

Mrs. HANSEN. An increase of \$964,000 is requested for GSA space rental. How was this amount determined and do you feel the costs are realistic?

Mr. RIPLEY. Mr. Brooks has the answer to that. We don't think it is realistic.

Mr. BROOKS. This was determined through a series of intensive negotiations with the GSA which is charged with establishing, as you know, the standard level of user cost which is essentially the rental cost of the property. The original proposal that GSA came to us with for the properties we are talking about was something like \$1,200,000. We have negotiated that down by some 25 percent in our submission. We still feel that some of these rentals do not accurately reflect the real value of the property which we are using.

Mr. RIPLEY. For the portion of the small old Government building which we are using in the Washington Navy Yard and which will be torn down eventually, the funding requirement is \$201,000. That is an awful lot of money for us.

The Liberty Loan Building, a trashy building if I say so myself, is a scandal, although it enjoys a glorious name going back to World War I. We must pay \$125,000 rental for only a portion of the building.

Mrs. HANSEN. What will they charge for the FBI Building?

Mr. RIPLEY. I am speechless.

Mr. BROOKS. You might find it is subsidized by such buildings as the Liberty Loan.

Mr. RIPLEY. Our Folklife Festival people have a lot of dealings with foreign ambassadors and foreign cultural attachés, and they shudder to receive these people in the Liberty Loan Building because it is so trashy and there are so many rats. It is a veritable slum. It is high life to them but low life the way we look at it.

Mrs. HANSEN. On page 9 there is a list of your rentals.

Mr. RIPLEY. That is right.

Mrs. HANSEN. You pay no rentals on the other buildings?

Mr. RIPLEY. No. Those we own.

Mrs. HANSEN. That will be the next step.

Mr. RIPLEY. We own them under enactment of Congress.

Mrs. HANSEN. They will be charging Congress rent soon.

Mr. BROOKS. I am happy to report there is one minor benefit from all this, and that is that we gave up that space in the GSA depot in New York when it turned out we were going to have to pay for it. We decided it would be best to move.

Mrs. HANSEN. Where did you move?

Mr. RIPLEY. We brought everything down here.

Mr. YATES. It didn't cost you \$10,000 to bring it down here; did it?

Mr. RIPLEY. I hope not.

Mr. YATES. How much did it cost to bring the material down from New York?

Mr. BROOKS. I don't think it was a major cost.

Mr. RIPLEY. That was a one-time cost.

NATIONAL MUSEUM OF NATURAL HISTORY

Mrs. HANSEN. You are requesting an increase of \$196,000 and 13 positions for the National Museum of Natural History. Please justify this.

Dr. CHALLINOR. Out of 15 new positions 11 are museum technicians. We are initiating no new programs in this fiscal year. We are endeavoring to fill the gaps created over the past 10 years in museum support facilities. Eleven museum technicians will bring us to a 1.67 to 1 ratio of support to scientists toward the immediate goal of a 2 to 1 support ratio.

From page 12 you can see how this ratio between professionals and support has grown. These support people are primarily concerned with taxidermy, cleaning bottles, taking fossils out of the matrix, and caring for the collections, sorting them, the sorts of things being done now very often by very high-priced professional scientists.

There is a program for training American Indians now working at the Museum of Natural History.

MERCURY CONCENTRATIONS IN FISH

Mr. McDADÉ. Would you describe some of the things that you have done in this area, particularly with respect to mercury concentrations in fish?

Dr. CHALLINOR. Two or 3 years ago we had occasion to go back into our collection and examine tuna and swordfish which had been caught between 1898 and 1910. We examined 10 different swordfish and tuna and took out a sample of about a quarter of a pound of muscle tissue from these fish, ground it up into an emulsion, and then analyzed it for methyl mercury in the fish. These fish were all caught in the middle of the ocean, not near the shore. We knew the date and the rough latitude and longitude at which they were caught.

It turns out that of these fish, more than half had greater than 0.5 parts per million of methyl mercury in them. That is based on wet weight, a technicality. This is above the limit that the Food and Drug Administration has set for human consumption of fish.

All this shows is that these fish had accumulated methyl mercury from natural causes, and often do for long periods of time. This is not

a recent phenomenon. This does not mean that this does not become very crucial for those fish which are caught near outlets of paper mills and things like that where there is a very intense concentration which has caused numerous physical disabilities, particularly in Japan.

Mr. McDADE. Having demonstrated that these fish have this concentration in open water, what impact did that have? I am thinking of how we try to manage this resource for the purpose of safe consumption.

Dr. CHALLINOR. This was published in an article in Science magazine. To the best of my knowledge the limit of 0.5 parts per million is what the Food and Drug Administration still holds. Their analysis is based on dry weight as opposed to wet weight. The significance of those two factors is based on wet weight. I will have to check what changes may have occurred.

Mr. McDADE. It was a most interesting sort of perspective you were able to bring to the problem.

Dr. CHALLINOR. This is why it is so useful and valuable for the Smithsonian to maintain collections such as these over long periods of time.

For example, in the same way you may be familiar with the beaching of whales on shore. They stagger around, swim around, and beach themselves again.

In the process of analyzing this we have found that what seems to be the cause for these whales beaching themselves is that the inner ear of the whale becomes loaded with a parasitic worm which clogs their echo location system because the stomachs of all these whales were empty. They can no longer use echo location to catch fish, and in navigating along the shore they beach themselves. The work we do often can have practical applications, at least learning why these things happen in nature.

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

Mrs. HANSEN. You are requesting \$202,000 and 10 positions for the Smithsonian Astrophysical Observatory. What is this about?

Mr. RIPLEY. We are involved jointly, as I mentioned earlier, with Harvard in a Center for Astrophysics under a single director. We feel that this is the most practical way to bring ourselves together for really cutting edge research in planetary science.

Mrs. HANSEN. What is their participation?

Mr. RIPLEY. They put approximately half of the total funds into this.

Dr. CHALLINOR. They have furnished the building in Cambridge where our scientists work. We pay rent to them for the use of that building. They actually built it, however. They built it from their own private funds and grants.

Mr. RIPLEY. Essentially with private grants from one family. It is a memorial building.

Dr. CHALLINOR. The 10 new people we are looking for are again primarily support people. We are looking for two in printing and reproduction to handle the volume of publications which are coming out. We need two more people to help with facilities at Mount Hopkins; five positions for personnel, procurement, and financial man-

agement purposes; and one position in the area of automatic data processing.

PUBLICATIONS OF OBSERVATORY

Mrs. HANSEN. Can you give us an example of the kinds of publications coming out?

Dr. CHALLINOR. These are highly technical publications, Madam Chairman, dealing with research we are doing at the edge of space, really. The material we are finding in intergalactic dust. We can now use radiotelescopes to determine the structure of the molecules which are floating around in space; and what, in effect, we are finding is that all the molecules which are on earth are also out in space. There may be more out in space than we have found on earth but this does not necessarily mean they are not here. It probably means we have just not found them.

These technicians and scientists are also working on a star catalog which they have done by computer. It has the precise locations of orbits of several hundred thousands of stars, all of which is recorded on tape. We get this on a computer printout in about 10 big fat volumes.

We have also developed with satellites "A Standard Earth." Earth, as you know, is slightly flattened at the poles. We are now finding it may be a little pear shaped, too. It is not the nice round sphere that we originally thought. These sorts of things are very useful in understanding what the Earth is made of and why it behaves as it does, looking at it as a planet.

RESEARCH IN SOLAR ENERGY

Mrs. HANSEN. The reason I asked the question is that there is a great deal of discussion now on solar energy. I wondered whether you were having any input to this discussion.

Dr. CHALLINOR. Our input on the solar energy problem is primarily concerned with the solar energy which leaves the Sun, and until it reaches the edge of our atmosphere. From the time it reaches the edge of our atmosphere and comes down to the surface, the solar energy work we are doing there is at the radiation biology laboratory in Rockville, which we will come to later. There we study the effect of solar energy on plant growth and we have been able to isolate important biochemical processes through very careful analysis of the ultraviolet end of the spectrum.

Mrs. HANSEN. As you are aware, at the Rhinelander, Wis. laboratory, the Forest Service has interesting work going on with regard to all phases of light, nuclear radiation, and so on. Do you ever have any consultations with them?

Dr. CHALLINOR. Yes, we do, not only with the Rhinelander Laboratory but several of the other Federal laboratories in the country as well as with universities. We have been able to develop highly technical machinery with the goal of isolating different bands at the ultraviolet end of the spectrum. One part we have been working on is that known as the erythral band. This is the band which gives you sunburn. By isolating it we can help determine the effect of solar energy on skin

cancer incidence throughout the world. The National Institute of Health is interested in this work.

KOHOUTEK

Mr. McDADE. Whatever happened to Kohoutek?

Dr. CHALLINOR. Fortunately, as far as the people who were up in space are concerned, it worked quite well. It worked well in the sense it was a lot more visible than it was from Earth. The problem was that it was hidden by the Sun at the crucial time it made its orbit around the Sun, so we could not see it well from Earth. It also did not have the long tail that we had thought it would have. From our observation it looks as though the theories that were advanced by our former director of the Astronautical Observatory that a comet such as this is a dirty snowball are accurate. This hypothesis seems to have been supported by the latest observations. The comets are thought to consist of water vapors which are frozen solid and as these bodies approach the Sun they start to melt, causing a spectacular streaming tail. As they go away from the Sun, the water vapor condenses and freezes on tiny particles of space dust to form a solid dirty snowball.

RESEARCH IN THE MAGNETOSPHERE

Mr. RIPLEY. We have been doing work which combines both the Radiation Biology Laboratory and the Astrophysical Observatory in the magnetosphere, the outer atmosphere, studying effects of radiation and the violent fluctuations which occur at certain times with the solar phenomenon, to see whether or not this will actually affect the lower atmosphere and be important in connection with stratospheric flight, for example, and also the kinds of weather predictions which may emerge from this.

These tremendous emissions of gas and ultrahigh frequency radiation which have been observed by the instrument which Harvard and the Smithsonian had on the Skylab show that there is a possible correlation between the kinds of weather changes that we have suspected for many years occurred in connection with solar events and the fact that these weather changes may be occurring and filtering down through these different atmospheric layers.

Dr. Abbot, one of my predecessors, died this year. He started these solar observations in the early years of this century as an assistant of Dr. Langley. It might appear that his work is coming to a kind of fruition with this new look we have been getting out in space. We are very excited about this. We feel this may affect the weather predictions.

EFFECT IN SPACE OF SUPERSONIC FLIGHT

Mr. YATES. Have you been cooperating with the studies taking place which are authorized upon the expiration of the SST program to see what the effect in space would be of supersonic flight?

Mr. RIPLEY. Our Radiation Biology Laboratory has been measuring the interference of clouds in the magnetosphere and the upper ionosphere.

Dr. CHALLINOR. It was Professor Johnson from the University of California at Berkeley who did a great deal of work on trying to predict what the effect of stratospheric flight would be with the advent of the SST. The measurements we had taken, starting with the experiments Dr. Abbot had initiated in 1907 monitoring solar energy, indicated that even exhaust emissions from automobiles generated on the ground were affecting the amount of ultraviolet light hitting the surface now.

Mr. YATES. When did he begin those experiments?

Mr. RIPLEY. It was 1907.

Dr. CHALLINOR. We stopped this in 1969. We had better equipment by then and pulled the data together. An interesting paper was published on this.

Again I want to stress this is the sort of long term research, monitoring research, that the Smithsonian is equipped to do which probably could not be done in some of the larger Government agencies where you have a greater turnover. As you know, we have been particularly lucky until last fall to have four of the eight secretaries of the Smithsonian alive and active here.

Mr. YATES. Dr. Challinor, we were told in another subcommittee, the Department of Transportation, that on the basis of their studies to date it would indicate that the fears which were expressed of possible pollution of the atmosphere, stratospheric layers, was a distinct possibility and that the objections which were raised by some of us to the SST program had some validity.

Dr. CHALLINOR. This is still controversial. We do not have any direct proof of this. I want to be diplomatic here.

The evidence we have been accumulating will require an additional 5 or 10 years of research before we get a concrete answer.

Mr. YATES. The fact remains we should have an answer to it before we authorize fleets of SST's.

Dr. CHALLINOR. What a reasonable chance is, must be left to the individual.

DUPLICATION BETWEEN RESEARCH AT MOUNT HOPKINS AND NASA

Mr. McDade. How do we get assurance that what you do at Mount Hopkins does not duplicate the tremendous resources tied into NASA?

Dr. CHALLINOR. Of the total amount spent on astronomy in this country, and we are talking about roughly \$280 million.

Mr. McDade. Government dollars?

Dr. CHALLINOR. Government dollars. Of that about 93 percent, around \$260 million, is strictly NASA funding. The National Science Foundation spends about \$9 million, or 3 percent of that. The Department of Defense, again there is another 3 percent, \$9 million. The Smithsonian effort is about 1 percent, so it is a relatively small proportion.

NASA contracts with the Smithsonian, really.

What we are able to do is to furnish the expertise for NASA to carry out a lot of their experiments. Right now about two-thirds of our total operating budget for the astrophysical observatory is from grants and contracts from NASA. The other third is federally funded.

We are not necessarily, therefore, in competition with NASA at all. They furnish us with contracts which allow us to do many things based on a direct line item budget.

The National Science Foundation is primarily a granting agency, giving money to scientists to use for their own astrophysical research.

We have furnished astrophysical facilities for scientists supported by NSF funds. Harvard scientists and scientists from all over the country are involved with us, so that our role is slightly different from that which we have with NASA.

Mr. McDADE. A complete interlocking.

Dr. CHALLINOR. Completely interlocked. We are very dependent on NASA. One of the requests for 10 new people in the astrophysical observatory is based on the fact that NASA support has declined from about 82 or 83 percent in 1967 to about 60 percent of our total income now.

Mr. McDADE. That has been a very helpful explanation.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

Mrs. HANSEN. A \$95,000 increase and five positions is requested for the Smithsonian Tropical Research Institute. This is in Panama?

Dr. CHALLINOR. This is in Panama.

Mrs. HANSEN. We have never given you too much here. Tell us what is new and different.

Dr. CHALLINOR. One of the crucial things we must do is to start to understand the tropics. We have tended to isolate this part of the world, and it is becoming more and more evident that the tropics have a great deal of direct effect on what happens to our life here. I can give you one rather exciting example.

In Panama and the surrounding area of South America north of the Equator, North American birds spend the winter. They all fly down from Canada and the United States and winter in an extremely high density. We are talking about 14 migrants per acre.

I would like to pass this around. It is a photo of hawks migrating over our building in Ancon. This flight represents almost the entire North American migration of a rodent-eating hawk which lives in the western part of our country.

The problem is that when all these birds come down from the north they have to eat while wintering. The environment of the tropics is changing greatly as the forests are being cut down, and people are planting crops because of the population pressure. We are trying to find whether there is some indication that if the environment is altered enough, the birds might not survive the winter to come back north in the spring. That is one example of the research we are doing.

EFFECT OF SEA LEVEL CANAL IN PANAMA

Mrs. HANSEN. Suppose it becomes necessary in the future to place another canal down there? This will have an impact on this sea life; will it not?

Dr. CHALLINOR. Yes, Madam Chairman. For the last 5 years we have been working on the potential biological consequences of a sea level

canal between the two oceans, studying what kinds of fish and other animals can get through a sea level canal that cannot get through the lock canal and the large fresh water lake which acts as a very effective barrier to marine organisms.

Mrs. HANSEN. There was an article not long ago written on the snakes that come in from the Pacific.

Dr. CHALLINOR. These snakes live in the Pacific. The water is too cold around the bottom of South America and around the bottom of Africa for them. They cannot swim through this cold water. They live from the east coast of Africa to the west coast of North America and South America in the warm parts of the ocean.

If you are interested in snakes, they are pretty, 3 feet long with a dark navy blue back and a bright canary yellow stomach. They spend their full life in the water. They don't come ashore to lay eggs or anything.

They are interesting animals. Other than turtles, they are the only pelagic snakes, the ones which spend all their time in the water. They are poisonous.

Mrs. HANSEN. Is that not the objection?

Dr. CHALLINOR. That is right. What effect would this have on the tourist industry of the Caribbean resorts?

Mrs. HANSEN. This is the question.

Mr. YATES. Do they come through the canal?

Dr. CHALLINOR. Not through the existing canal because of the fresh water, the locks, and things like that. We do know there will be a net flow of water from the Pacific to the Atlantic if the sea level canal is dug. As near as we can tell the Pacific has a mean net level of about 6 to 7 inches higher than the Atlantic. You have tides which go up and down the Pacific and virtually no tide in the Atlantic. High tides in the Pacific would cause a great slug of water to come through the canal. It is at a fast speed because it will narrow into a channel. At low tide it goes out, but never all the way because you have a mean higher level in the Pacific. It will go surging through the canal like this and a given slug of water will take about 48 hours to go through the canal by itself, so will move with it those organisms which do not swim. If the organism swims it can probably swim against the current anyway. These snakes do not swim very strongly. They certainly would be carried by a strong current.

Mr. YATES. Does this mean you are voting against a sea level canal?

Mrs. HANSEN. They have to find some device to keep them out. Is that right?

NEED FOR BIOLOGICAL BARRIER IN SEA LEVEL CANAL

Dr. CHALLINOR. Our recommendation is to try to figure out what kind of biological barrier we could put in the middle of the canal, chemical, thermal, whatever it might be, which would, in effect, kill all aquatic organisms which might be swimming along or be carried along so we avoid a mixture.

Mr. RIPLEY. We think it would be a biological disaster if there were not an effective barrier. By fortuitous chance there is a barrier now because they built the canal as they did.

Mr. McDADE. When the canal was built was there a body of scientific knowledge aware of this?

Mr. RIPLEY. No. They simply took advantage of the local streams. There was a large river system, and it had a big flow. By damming it up they made this lake through which the boats could go. It was purely accidental.

Dr. CHALLINOR. They initially voted to build a sea level canal. That was one of the primary considerations back in 1902 and 1903. It was also the expense involved, engineering factors, and so on.

Mr. RIPLEY. Which are still with us.

Dr. CHALLINOR. That is right.

Mrs. HANSEN. We were saved from a disaster.

Mr. RIPLEY. We have no way of hazarding what the effects would be on food fishes, on all kinds of food fishes, on insect populations, corals, and the little snakes that people talk about which are interesting in terms of real estate values in the Caribbean.

RADIATION BIOLOGY LABORATORY

Mrs. HANSEN. You show a \$40,000 increase and two positions for the Radiation Biology Laboratory.

Mr. RIPLEY. The Radiation Biology Laboratory we have already mentioned. We are very much concerned at the present time in studies of the ultraviolet spectra. We have developed important refining techniques which require us to add additional people for mathematical analysis and data reduction.

This laboratory was started by Dr. Abbot, who pioneered research on the influences of visible light on plant growth and development. The laboratory is now involved in research on sunburn and the possibility of studying erythral cancer. We have received additional support and encouragement to continue these studies.

Mrs. HANSEN. Your Chesapeake Bay Center is requesting an increase of \$162,000 and six positions for environmental studies.

Dr. CHALLINOR. Here we are faced with an enormous number of things. We have had some 2,500 participants in the educational program at the Center there and are trying to handle this crowd with an administrative staff of three people. We are now looking for an education specialist, one person at \$22,000 to help us plan our educational program and carry it out in a reasonable and efficient way. We need an administrative assistant and a clerk typist to assist in handling the tremendous number of people we have coming there.

Then we need a maintenance man, an assistant resident manager and a custodian to help maintain the property and keep away the poachers who are inclined to come and shoot ducks in the wintertime. These total six new people.

I want to point out that the Bay Center education program has developed extremely rapidly. We have, for example, 880 inner city children coming to the Bay Center, 40 at a time for a week, under a privately financed project supported by the Meyer Foundation here in Washington in cooperation with the Washington YMCA.

In addition we have graduate students and undergraduate students, and we have a long list here of the local and national colleges and

secondary schools which have participated down there in education programs.

The new positions we are looking for again are all for support of existing ongoing programs. There is no request for new money for new programs.

OFFICE OF ENVIRONMENTAL SCIENCES

Mr. YATES. The Office of Environmental Sciences interests me. Reference was made to a 4-year study of waterborne diseases along the Mekong River Delta. Do you have the scientists to undertake that kind of study?

Dr. CHALLINOR. In this case, Mr. Yates, we had a contract with AID to study snails, and what we were trying to do was to find what snail lived where and carried what parasite. The snail is the alternate host.

In this case we got a scientist, a malecologist, a snail man, from the University of Michigan who came to the Smithsonian under contract to carry that out.

However, he had to make use of the large collection of snails we have in the Museum of Natural History to help identify what snail is what.

Mr. RIPLEY. In this case we may have some of the expertise, enough to make it worthwhile to contract out, get a man to help work over the collections, and compare them with the new collections.

Mr. YATES. These are the diseases found in the Nile River?

Dr. CHALLINOR. The Nile and Northeastern Brazil. It is perhaps the second or third greatest public health problem in the world. We are talking about perhaps 250 million people on the globe who are infected with this disease spread by snails.

WORK OF OCEANOGRAPHIC SORTING CENTER IN TUNIS

Mr. YATES. I notice you have an Oceanographic Sorting Center in Washington and Tunis. What happens in Tunis?

Dr. CHALLINOR. In Tunis, using foreign currency made available to the Smithsonian, in this case, Tunisian dinars, we maintain an Oceanographic Sorting Center which collects and sorts marine organisms. What we have there is a rented building, the rent for which we pay in local currency, and 38 Tunisians, mostly biology students whom we are training as technicians, and to identify the organisms. We have one American Director who is paid out of Federal funds, and is one of the 35 positions you see here under the Office of Environmental Sciences.

What they are doing, for example, is finding out where tuna larva, which might be only this big [indicating a half inch], live at what times of the year and at what depth. Then you have to collect all the stages of growth so you can say a little thing this big [a half inch] will turn into a tunafish or swordfish.

When you see it this big [a half inch], it is hard to determine what kind of fish they will grow into until you get the sequence of change as the fish grows.

Mr. YATES. Is not Tunis a long way from the tunafish spawning ground?

Dr. CHALLINOR. They catch tunafish in the Mediterranean. I was using that fish merely as an example. There are many other commercially valuable fish. They have caught tunafish since prehistorical times there.

OFFSHORE DRILLING

Mrs. HANSEN. How about offshore drilling?

Dr. CHALLINOR. The Java Sea is a very shallow sea, 300 to 400 feet deep. There is a great deal of interest there by the Indonesian oil monopoly to drill in that area.

Because the area is so densely populated, and they depend so much on fish to feed these people, the Indonesian Government is particularly concerned about the effect of oil spills on fish.

Mrs. HANSEN. Is this financed through AID.

Dr. CHALLINOR. Financed through an AID contract.

CENTER FOR SHORT-LIVED PHENOMENA

Mr. McDADE. How about the center for Short-Lived Phenomena?

Dr. CHALLINOR. They are working closely with the U.N. environmental program. The director of that program now is in Nairobi at a 2-week meeting of the U.N. environmental program to help the United Nations develop a global monitoring system, not only on oil spills but everything else involved there.

The United Nations might properly be in the best position to manage rather than to try to make this solely an American effort. It is something we might spin off and let the United Nations handle.

Mr. McDADE. Give one illustration.

Mr. RIPLEY. There have been a lot of oil spills.

Dr. CHALLINOR. Earthquakes.

Mr. RIPLEY. There are numerous things.

Dr. CHALLINOR. We had the entire side of a volcano crater in the Galapagos collapse, a volcano which had been inactive for several decades. There was a lake at the bottom of it. All of a sudden the walls literally came tumbling down, steam spouted up, and the lake started to boil.

From a point of view of what is happening on the Earth this is very interesting to people who study this sort of thing.

EFFECTS OF DISEASE CARRIED BY SNAILS

Mr. McKAY. What is the effect of the disease referred to which is carried by the snail?

Dr. CHALLINOR. It is a rather gruesome effect. As you swim or bathe, the cercariae, or parasite, gets into any little cut you have, it travels in your bloodstream and lodges usually in your kidney and forms a cyst. If the cyst becomes large enough you can die from uremic poisoning. It is extremely painful in an extreme case of schistosomiasis. In most cases it is a debilitating disease, such as malaria. In an extreme case it can cause death.

Mr. McKAY. Does it create a form of paralysis, lack of energy?

Dr. CHALLINOR. A complete lethargy as it affects muscle tissue and your bodily function. It is debilitating more than fatal.

SMITHSONIAN COOPERATION WITH THE SOVIET UNION

Mrs. HANSEN. What are your relationships with the Soviet Union?

Dr. CHALLINOR. Soviet Union relationships are concerned with scientists and scientific exchange of information. We have been working quite closely with them on the migration, for example, of birds across the Himalayas where there are birds which spend the summer in Russia and the winter in India. We have been netting them in India and we are trying to learn whether the parasites they carry, as they fly from the tropics to the Arctic, can affect human health.

As you know, there are external parasites living in bird feathers. When they fly to the Arctic, do these parasites carry viruses and things that can affect humans?

As a result of several years research both in the old world and the new world we find these parasites survive in north-south migration, but to the best of our knowledge there has been virtually no evidence that the viruses these parasites carry have a direct effect on human health.

That is an example of the cooperation with the Russians. We are also working with them on fish studies. For the Chinese People's Republic I will defer to Dr. Reed. We are working on pandas, the first direct exchange we have had with the People's Republic.

We have since followed this up with information regarding the musk ox, as well as the breeding and care in captivity of other animals.

The Chinese have successfully raised the panda in captivity, incidentally.

NATIONAL AIR AND SPACE MUSEUM

Mrs. HANSEN. You are requesting an increase of \$1,307,000 and 23 positions for the National Air and Space Museum. What is the requirement for these funds now since the new Air and Space Museum is not scheduled to open for about 2 years?

Mr. COLLINS. We have a tremendous job ahead of us. We have to get a headstart on it. We have over 200,000 square feet of exhibit space to fill up in the new building. When we open on July 4, 1976, we want to show the public a mature museum, or as close to a mature museum as we can. Now is the time when we need to add staff and dollars and put that staff and those dollars into building exhibits which we can try out on an experimental basis in the Arts and Industries Building and then store and have available to install in the new building when we move in.

If we wait until we move in, it will be too late.

Mrs. HANSEN. Are all your exhibits cataloged at this time?

Mr. COLLINS. I am not sure I understand what you mean by cataloged.

Mrs. HANSEN. They are all inventoried and all ready to be placed?

Mr. COLLINS. No, they are not.

Mrs. HANSEN. This is partly what you would do?

Mr. COLLINS. Yes.

Mrs. HANSEN. You have a certain amount of selectivity to make among all your objects.

Mr. COLLINS. We have asked for five positions for curatorial research to decide what best can go into those exhibits. Then we have asked for carpenters and other people such as that to restore the artifacts and actually construct the exhibits themselves.

STATUS OF CONSTRUCTION OF NEW BUILDING

Mrs. HANSEN. Is the construction of the new building on schedule and are there any overruns?

Mr. COLLINS. It is on schedule. As of this time there are no overruns. We are within our budget.

Mr. Offenbacher, from the GSA, is our project manager on this museum.

Mrs. HANSEN. You are not in the rental department?

Mr. OFFENBACHER. No.

Mrs. HANSEN. What has made this building so free from overruns?

Mr. OFFENBACHER. We used a different management concept to manage construction of this building in two ways. We used a project manager, one person responsible from beginning to end. We used the general contractor as a consultant rather than a general contractor, and we awarded subcontracts ourselves. It is an entirely different concept.

Mrs. HANSEN. So you can better keep track of your costs?

Mr. OFFENBACHER. Costs, control, and really manage construction rather than just argue with the general contractor.

Mrs. HANSEN. Why didn't you do that with the Kennedy Center?

Mr. OFFENBACHER. Mr. Sampson introduced this concept shortly after coming to GSA. Before that we lived with the award to the lowest responsible bidder method.

DETAILS ON REQUESTED NEW POSITIONS

Mrs. HANSEN. Will you please insert in the record a listing by title, grade, and job description of the 23 new positions you are requesting?
[The information follows:]

National Air and Space Museum

23 New Positions Requested in FY 1975

Director's Office:

1 GS-5 Clerk-Stenographer

Clerk-Stenographer - Serves in the Office of the Director providing clerical support for the staff in preparing correspondence; answering and passing telephone calls; and serving as receptionist.

Aeronautics Department:

1 GS-9 Curator

1 GS-7 Curator

The incumbents of these positions will, under the direction of a higher graded employee, perform research on various areas of aviation history for the preparation of exhibit scripts, books and informational pamphlets. The curators answer questions submitted by phone or letter using departmental files and the NASM library as resources.

Astronautics Department:

1 GS-9 Curator

1 GS-7 Curator

The incumbents of these positions will, under the direction of a higher graded employee, perform research on various areas of astronautic history for the preparation of exhibit scripts, books and informational pamphlets. The Curators answer questions submitted by telephone or letter using departmental files and the NASM library as resources.

Science and Technology Department:

1 GS-11 Curator

The incumbent of this position will, under the direction of a higher graded employee, perform research on various areas of the history of air and space science and technology. The research will be used for the preparation of exhibit scripts, books and pamphlets. The Curator will answer questions submitted by telephone or letter using departmental files and the NASM library as resources.

Presentations and Education Division:

1 GS-11 Writer/Producer

The incumbent of this position will prepare scripts and produce planetarium shows. He must have a broad knowledge of astronomy and have the ability to convert astronomical phenomena to dramatic and accurate visual effects.

He will coordinate the production of programs and the activities of the NASM theater.

1 GS-7 Planetarium Technician (Mechanical)

The incumbent of this position, under the supervision of a higher graded technician, develops and maintains electro-mechanical and special effects devices in the planetarium.

Exhibits, Design and Production:

1 GS-12 Designer

The incumbent of this position is responsible for the complete design of assigned exhibit halls, including the architectural graphics and industrial design. Oversees the production and installation of exhibits.

1 GS-11/13 Audio-Visual Writer/Director

The incumbent of this position is responsible for the preparation of storyboards scenarios, voice scripts, playlets, etc. Produces and directs the accomplishment of the written material.

1 GS-9/11 Design/Technician

The incumbent designs, constructs and maintains a variety of electro-mechanical and optical equipment.

1 GS-9 Audio-Visual Technician

The incumbent works with a group producing, installing and maintaining A/V equipment.

1 WG-3 Laborer

The incumbent is responsible for the minor maintenance and cleaning of exhibits and exhibit halls.

2 GS-7/9 Cabinetmakers

The incumbents of these positions fabricate and install complicated cases, panels, diorama housings, and other complex exhibit items from a wide variety of materials, using all hand and power woodworking and metal working tools.

Preservation, Restoration and Storage Division:

4 GS-4 Museum Aides

The incumbents of these positions will work with higher graded craftsmen, assisting in the preservation and restoration of air and space vehicles. They will also perform a variety of laboring tasks.

4 GS-3 Museum Aides

The incumbents of these positions will perform a variety of warehousing duties. Under direct supervision they will clean, preserve and store artifacts. They will also assist in the moving and storing of large aircraft, spacecraft, engines, etc.

ANTICIPATED VISITATION

Mrs. HANSEN. How many visitors do you anticipate there per day?

Mr. COLLINS. Our maximum load per day is 50,000. That is our design load. Perhaps the annual total would be more meaningful. We are expecting between 6 to 7 million people the first year we are open.

Mrs. HANSEN. Do you have more visitors at your present space location than any other part of the Museum?

Mr. COLLINS. That old tin shed sees almost $1\frac{1}{2}$ million people a year. The Arts and Industries Building, the red building next to it, sees almost $2\frac{1}{2}$ million visitors a year.

In the new building I expect those figures will about double.

Mrs. HANSEN. You particularly have an influx of young people, don't you?

Mr. COLLINS. We do all over the Smithsonian. I am not sure our Museum visitor is any younger than the others. We have not done a survey on that. I think perhaps we get a family which tries to see as much as they can in the time available. They jump from one museum to the other and generally spend an hour and a half or so in one building.

Mr. McDADE. Have you decided whether or not you will keep together that display of the Wright Brothers, Lindberg's plane, and Glenn's capsule?

Mr. COLLINS. Everything in the old red building will be moved into the new building. It won't quite be kept in the same arrangement that it is now. It is jammed in now and we will have more breathing room. Everything that is in the old red building will go into the new building.

Mr. McDADE. As it is grouped now, it is a beautiful demonstration of the history of American aviation in one little room.

Mr. COLLINS. It is but we can do better in the new building. We have a larger room and we can add a few things without having it cluttered.

Mrs. HANSEN. We will resume at 1 o'clock.

CENTER FOR THE STUDY OF MAN

Mrs. HANSEN. The committee will come to order.

I have a letter from the Washington Archeological Research Center, from Dr. Daugherty.

He says:

There exists at the Smithsonian Institution an organization titled "The Center for the Study of Man," headed by Dr. Sam Stanley. Within his organization is a program of "emergency anthropology." This program has, to date, been focused largely toward aiding in the salvaging of anthropological data from groups on the verge of extinction in areas of the world other than the United States. What I am proposing is a massive program involving American Indian tribes and anthropologists, cooperating to save those last remnants of traditional culture before it becomes too late.

He goes on to talk about Neah Bay, that is, Ozette, and so on. What he is interested in doing, before it is too late, is a kind of a program through all the Indian world to salvage as many of their artifacts and as much of their culture as possible.

For example, he quotes that two of the elderly tribal members had died since summer and these were some of the people who possessed the old songs, and the lore, and so on.

What can be done in the Center for the Study of Man under your authorization to develop a program that would begin at least in some way to pull together people interested in saving not only the artifacts but the lore?

Mr. RIPLEY. I think a great deal could be done and with quite small funds, too, because this is not a question of a large amount of money.

Mrs. HANSEN. How much money would it take?

Mr. RIPLEY. I think an annual appropriation of something in the neighborhood of \$50,000 would probably be immensely helpful. Over the past 7 years we have spent about \$50,000. In recent years, expenditures have been about \$10,000 a year, mostly abroad.

Among American Indians themselves we have had 10 of these projects ranging from Alaska to Arizona and they have averaged less than \$1,000 each. We could easily do about 10 to maybe 20 times as much as we have been doing. The need is to locate and develop tribal scholars and practitioners themselves, and this we have been doing.

In a related program in the National Museum of Natural History, we have been developing seven or eight students every year who are American Indians and then getting them to go out and act as the tribal archivists and documentation people. I am entirely in accord with this. I think it is an extremely important thing to do. There are dozens of Indian languages which are still not properly understood and it is the kind of thing that Major Powell started, as you know, in 1879, and that we have been carrying on consistently first with our Bureau of American Ethnology and now at the Center for the Study of Man.

I am on the board of a foundation abroad where we have been trying to do this with other ethnic groups, their music, traditions, drama, in exactly the same way. It is most important in the United States.

Mrs. HANSEN. Particularly in the Northwest there are tribal members who are getting very old and these tribes have not had enough students or young people that have been interested long enough to have the required training. It is something that should be done, I think, because it is a tragedy to lose these things.

ENCYCLOPEDIA OF NORTH AMERICAN INDIANS

Mr. RIPLEY. We are very keen about this and it fits in perfectly with our development of the Encyclopedia of North American Indians for which, as you know, the Congress has supported us very thoughtfully.

Mrs. HANSEN. When is that going to be done?

Mr. RIPLEY. It will be issued in 1976. It is going to be more than 20 volumes. Already we have hundreds of authors, several editors, and other people working on it. It is going to be a pioneer thing.

Mrs. HANSEN. How much are your volumes going to sell for?

Mr. RIPLEY. We have not yet set a price on them.

Mr. BLITZER. They are to be published by the Government Printing Office and I assume the costs will be kept down to a minimum.

Mrs. HANSEN. Don't you know that their printing prices are going up, too?

Mr. BLITZER. Yes, but there are less markups in between, I think.

Mr. RIPLEY. We have potential projects for this Center for the Study of Man all over the country, even on the east coast, for example, in Baltimore where there is a very large American Indian community, one of the largest on the east coast, and right up into Alaska and, of course, California.

We are very much in favor of this work. In Washington, the Lummi and the Makah both are particularly interesting.

Mrs. HANSEN. Out there is a very interesting tribe, the Quileutes, who have been pushed to the brink of nowhere by rather sharp trading. These were whaling people and there are a few elders in the tribe that actually did whaling and had several voyages. These are interesting people. They are not going to live forever.

Mr. RIPLEY. No.

Mrs. HANSEN. If I put that amount in don't you behead it and move it over someplace else.

Mr. RIPLEY. We make it a practice not to do that.

ANIMAL CONSERVATION CENTER

Mrs. HANSEN. What is the status of your proposal to use the former Beef Cattle Experiment Station at Front Royal. We have your letter, and funds amounting to \$125,000 have been requested in your construction account. What did you expend last year for this purpose?

Mr. RIPLEY. I would like to ask Dr. Reed if I may to speak to this.

Dr. REED. Madam Chairman, on this matter last year is actually this fiscal year. We just received a permit to use the Front Royal grounds. It has not become our property as yet, but we have a use permit as of January 18, 1974, so our occupancy has been a short time.

This year's funds coming from our zoo base will be about \$80,000. By the end of the year we intend to have about 4.5 full-time and part-time employees and about 3 or 4 temporary employees working in the hayfields. We will spend between \$25,000 to \$30,000 for fencing material to arrange for paddocks in order to get the animals out there. It probably will be occupied by animals by mid-June.

SMOKEY BEAR

Mrs. HANSEN. I have a letter, written to you, Dr. Reed, from someone who has read the Sunday Oregonian of February 10 about "Smokey Bear and the National Zoo." She is complaining that the Pandas have taken Smokey's place in national publicity. Of course I don't know what you could do about that. She would like congressional appropriations sufficient to provide reasonable quarters for Smokey and refurbishing of the large red sign. She says that panda advertisement should not be exclusive throughout the zoo. Finally, she says that because Smokey had no offspring perhaps a substitute is now appropriate.

Dr. REED. May I speak to this.

Mrs. HANSEN. Yes, you may.

Dr. REED. Unfortunately, when you have two such personalities as the pandas and Smokey Bear, they are in the position where someone is always willing and perhaps eager to pull them down. The king is always subject to all sorts of criticism. Fortunately at the National Zoo we have two such very famous, strong, and good characters so we are subject to a lot of newspaper "advice."

Mrs. HANSEN. Let me read the opening paragraph of the newspaper article attached to the letter:

The cage is dark and murky and it takes a little time to make out the untidy form curled against the far wall. But the face is striking, weary, and philosophical and seeming to express some unknown existential sadness. It is a face that could make you cry. It belongs to Smokey the Bear.

Dr. REED. They just described an ordinary American black bear.

I have read this article several times. Many people have sent it to me from all over the country. This type of article is what happens when you have a place that is popular. We are easy to take swipes at. Smokey is a happy bear considering he is 24 years old. He is a senior bear, but he is very happy.

Smokey is not as bad off as the media would suggest.

Mrs. HANSEN. I understand.

Dr. REED. He has a nice comfortable bunk and he has plenty of straw to sleep on and he has a nice dark den which he likes. Bears don't particularly like overly bright sunshiny days. Naturally you can't see his face when he is in the dark of his den.

Mrs. HANSEN. Did you advise the writer of their habits?

Dr. REED. A newspaper man who wants to write a story like this does not seek my advice because I might tell him the truth. Then he might not be able to write his story. I am afraid that we are victims of our own popularity. The lady who wrote the letter does not realize we do have a Smokey Junior in residence who has been officially designated as the successor to Smokey. Unfortunately Smokey and Goldie had ample opportunity to carry on their line, but Smokey has not taken advantage of this opportunity. We don't know why.

We know that his feet got pretty badly burned, but he is an active bear. The television crews come out there and take pictures of Smokey when he first gets up with a kind of a stiff, old man walk. He has always had bad hips. So they say he is in bad shape and we are not taking care of him.

We have a veterinarian giving him constant attention. We take care of him, just like we do all our animals, with the proper medical care. He is living well.

Smokey is not bad off. He is a very happy bear.

Mrs. HANSEN. I am glad.

FEEDING THE ANIMALS

Mrs. HANSEN. Let me read you this note from one of my adventurous office staff members who jaunts around Washington.

When I was last at the zoo at the elephant house people were gathered around throwing popcorn, peanuts, and candy into the mouths of hippopotamuses and elephants. There were no wire screens to protect the animals nor were there

any keepers to prevent this. It wasn't just an isolated instance. In one instance the wading area of hippo looked like a pool of popcorn. I also wondered when they would complete the new lion house. The old one is closed.

Do you want to explain the popcorn adventure?

Dr. REED. Certainly.

The rule on feeding animals at the zoo is generally that you are not supposed to feed the animals but especially you are not supposed to feed certain ones. The feeding of popcorn, peanuts, and sometimes bread to the elephants and the hippos has not caused any trouble.

If we felt that it was being done excessively or to the detriment of the animals we would prohibit it altogether and I probably would have to ask you for some more policemen to enforce it. But as long as we feel that it is not injurious to the animals we will let it happen.

For instance, we would not allow any feeding of the sea lions. Feeding, except approved food is verboten. Feeding the gorillas is verboten as is the colobus monkeys. Barbary apes can be fed practically anything as can be the bears. They are omnivorous and they will eat practically anything, including human food.

We do control feeding.

Mrs. HANSEN. Well, what do you do about getting rid of the popcorn if they don't eat it?

Dr. REED. One of the keepers has to clean it up. At 9 o'clock in the morning it is cleaned up and frequently during the day.

Years ago, before my time, they tell me that one of my enterprising keepers used to take his broom about 1 o'clock on Sunday and sweep up all the unused peanuts and sell them again to the visitors. He had quite a little business going on the side. That man is no longer with us. He probably retired a millionaire before I got there.

NEW LION AND TIGER EXHIBIT

So far as the lion house is concerned, we are very happy to report that the old 1890 menagerie-style lion house will be demolished probably starting tomorrow. I expect the newspapers and television will cover it.

Mrs. HANSEN. No; they will be out with Smokey.

Dr. REED. Maybe they will have Smokey watching, too. We will open bids for constructing the new lion and tiger exhibit about the first of June.

Barring any unforeseen problems with material, such as shortages in reinforcing rods or cement, or labor strikes, we will open the new lion and tiger exhibit by April of 1976 so it will be ready for the Bicentennial.

Mrs. HANSEN. How about the wire screens? As you well know, you have changed zoo design over the years. Too many people view a zoo with the pre-World War II ideas of what a zoo should be.

Dr. REED. We would be very happy to get rid of all those old bars. Our object is to minimize or eliminate the visual barrier between the visitor and the animal and yet keep the animal safely within his quarters. We can't let the animals get out. So we use harp wire.

By the use of harp wire, plate, glass, water moats, dry moats, and so forth, we will eliminate the bars that are objectionable to humans. I

object to them. I think they are horrible. But in 1890 that is what they used.

OFFICE OF ASSISTANT SECRETARY FOR HISTORY AND ART

Mrs. HANSEN. You are requesting an increase of \$50,000 and two positions for the office of the assistant secretary for history and art. What is this about?

Mr. RIPLEY. Mr. Blitzer, would you like to speak to that?

Mr. BLITZER. Yes, Madam Chairman, I would point out that within the line item assistant secretary for history and art there are two program activities. The American studies program and the papers of Joseph Henry would account for roughly 50 percent of the base positions and dollars.

The increase that we are asking in fiscal year 1975 is partially for one person and salary and a little supporting money in my own office.

My office now consists of me and my assistant and two secretaries. We would like one more helper. And the requested increase includes one person and \$10,000 for the papers of Joseph Henry to assist in transcribing and sorting the source materials for this continuing project to publish the papers of the first secretary of the Smithsonian.

Mrs. HANSEN. What are you doing in your office for the development of the Bicentennial program?

Mr. BLITZER. My office has general responsibility for the development of the program, and Mrs. Hamilton, who is here today, is directly in charge. I hope that when we get to that part of the budget we will both be able to tell you more about that program.

HISTORY AND ART BUDGET REQUESTS

Mrs. HANSEN. I noted the reference in your justification to the development of the Smithsonian Bicentennial.

You show a \$121,000 increase for the National Museum of History and Technology. There are no new positions. Will you explain this?

Mr. BLITZER. Yes.

Throughout the justifications we will be presenting budget needs that all fall within the rubric of support that the secretary was talking about this morning. There are no program increases in any of these history and art bureaus, that is, no increase of funds for exhibitions, acquisitions, or research.

Mrs. HANSEN. Is this true also with the \$63,000 and three positions increase for the National Collection of Fine Arts?

Mr. BLITZER. Correct.

Mrs. HANSEN. And \$90,000 and six positions increase for the National Portrait Gallery?

Mr. BLITZER. Yes.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

Mrs. HANSEN. You are requesting \$1,275,000, a program reduction of \$46,000 for the Hirshhorn Museum and Sculpture Garden. However, you are requesting an increase of 15 permanent positions. Do you want to explain this?

Mr. BLITZER. As you know, Madam Chairman, we have received funds in this fiscal year and in the past fiscal year for the purchase of equipment and furniture for the museum and in prior years we had received appropriated funds for work on objects in the collection for the opening exhibition.

We have been assuring you for the last several years that when those funds had bought the things that we needed or done the work that we needed we would apply them to the regular operation of the museum rather than asking for increases. So, in fact, we have found that we can live within this year's appropriation, in fact with a program fund decrease of \$46,000, and still staff the museum up to more or less full level since, happily, we are able to tell you now that it will open in October of this calendar year.

Mrs. HANSEN. There was an article in the newspaper about six oil paintings stolen from the Hirshhorn home. Were these in your collection?

Mr. BLITZER. Four of the six were to come to the museum.

Mrs. HANSEN. Have they been returned or is there any further information on this theft?

Mr. BLITZER. The last word I have is that three arrests have been made, but the paintings have not yet been recovered.

Mrs. HANSEN. Do you imagine you will get them back?

Mr. BLITZER. I don't know how to guess about that. May I go off the record for a moment?

Mrs. HANSEN. Please.

[Discussion off the record.]

Mrs. HANSEN. You say the museum will open in October of this year?

Mr. RIPLEY. It is scheduled to open on October 1, 1974.

Mrs. HANSEN. What caused the delay in opening it? Originally it was set for this spring.

Mr. BLITZER. I can say several things. In the first place no delays were caused by Smithsonian operations. We have been ready and eager for the building to be finished. The delays were in construction and I think one reason for them is that unfortunately this job was started before the GSA adopted the new construction management system that Mr. Offenbacher was telling you about. This is a more conventionally managed construction job. You asked us once years ago if there was anything more going to happen in construction that hadn't happened already. We said no there wasn't, but we learned of some more things.

Mrs. HANSEN. What is the current status on the contractor claims and when will they be settled?

Mr. BROOKS. There are presently four claims pending before the General Services Administration Board of Contract Appeals where these claims go. None of them has yet been adjudicated.

Mrs. HANSEN. These are all within the jurisdiction of the GSA though?

Mr. BROOKS. Yes, Madam Chairman.

Mrs. HANSEN. They are not in your jurisdiction and have nothing whatsoever to do with you?

Mr. BROOKS. That is correct. None of the claims arise from any action on the part of the Smithsonian. The total amount of the claims now standing is \$1,321,000.

Mrs. HANSEN. What are they? Overruns or contractual changes?

Mr. BLITZER. As I understand it, they are very technical questions that involve the architectural firm, the contractor, and GSA about whether certain specifications were proper or whether the contractor was delayed. They do not result from program changes of the Smithsonian.

Mrs. HANSEN. Please insert in the record a listing of the total amount that has been appropriated to date for the Hirshhorn Museum. Indicate in that listing the programs involved, the number of positions, and the year in which the funds were appropriated.

Then give us the total amount of the contribution as far as the art was concerned, the art, sculpture, and so on.

Mr. BLITZER. We will be pleased to do so.

[The information follows:]

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

Funds appropriated for the Hirshhorn Museum and Sculpture Garden are as follows:

Fiscal year	Construction dollars	Museum		Plant operation and protection	
		Positions	Dollars	Positions	Dollars
1968.....	803,000	3	62,000	-----	-----
1969.....	2,000,000	7	149,000	-----	-----
1970.....	3,500,000	13	308,000	-----	-----
1971.....	5,000,000	18	365,000	-----	-----
1972.....	3,697,000	21	623,000	-----	-----
1973.....	-----	23	1,140,000	-----	48,000
1974 (estimate).....	-----	37	1,269,000	37	400,000

TOTAL AMOUNT OF HIRSHHORN GIFT

No formal appraisal of the entire, vast Hirshhorn gift has been made. To do so would involve a very substantial expenditure, calculated on the basis either of the thousands of objects in the collection or of the millions of dollars they are worth. The following figures comprise a reasonable estimate of the total value.

In 1965-66, prior to enactment by the 89th Congress of the legislation establishing the Hirshhorn Museum and Sculpture Garden, the works of art in the collection of Joseph H. Hirshhorn and the Joseph H. Hirshhorn Foundation were evaluated at \$25 million. Details of this evaluation may be found in the House Appropriation Hearings held by the Subcommittee on the Department of the Interior and Related Agencies for Appropriation for 1971 on pages 912-917.

In 1970, at the request of our House Appropriations Subcommittee, 20 works of art from the Hirshhorn gift were appraised by Parke-Bernet Galleries, Inc. at \$2,660,000. These same 20 works had been evaluated at \$1,352,500 in 1966.

In 1972, a second Hirshhorn gift of 161 paintings and 162 sculptures was appraised by Parke-Bernet Galleries, Inc. at \$7,739,800. Some of these works are

closely related to those in the original gift of 1966, and, a comparison of evaluations of these similar works is instructive:

	1966 estimate	1972 appraisal
Albers:		
"Homage to the Square: Clearing," 1962, oil, 40 by 40"-----	\$5,500	
"Homage to the Square: Glow," 1966, oil, 48 by 48"-----		\$40,000
Chase:		
"Belgian Melons," c. 1911, oil, 24½ by 32¾"-----	6,500	
"Still Life with Fish and Brown Vase," 1914, oil, 29 by 36"-----		17,500
Daumier:		
"L'Ironiste," c. 1832-35, bronze, 8¾" H.-----	4,800	
"Un Malin," c. 1832-35, bronze, 8¾" H.-----		8,500
Matisse:		
"Head of Jeanette IV," 1910-13, 23½" H.-----	25,000	
"Head of Jeanette V," 1910-13, 23½" H.-----		75,000

Based on our previous evaluations, and on the rising art market since the original gift was made, a conservative estimate of the value of the original gift would now be \$40 million. This, added to the \$7,739,800 value of the gift of 1972 (which has presumably also appreciated in the last 2 years) would make a total value of at least \$47,739,800.

FREER GALLERY OF ART

Mrs. HANSEN. A \$67,000 increase and four positions for the Freer Gallery of Arts is requested. Please comment.

Mr. BLITZER. Madam Chairman, here again these new resources are to remedy support deficiencies. They are not program increases. Specifically we are asking for an education specialist who has the necessary language and art training who will be available to take groups through the Freer on educational visits.

We are asking for an assistant registrar; a one-time expenditure of \$4,000 for microfilming archival materials, mostly relating to Mr. Freer and his gift; one conservator, and \$2,000 for conservation equipment specifically for quantitative analysis of metal objects in the collection; an assistant librarian; and \$8,000 for photographic equipment.

Mrs. HANSEN. What is the visitation per year at the Freer Gallery?

Mr. BLITZER. Approximately 225,000. We can give an exact figure. [The information follows:]

Fiscal year:	Visitations to the Freer Gallery of Art	Visitors
1963 -----		183,359
1964 -----		168,625
1965 -----		210,972
1966 -----		222,089
1967 -----		212,920
1968 -----		169,533
1969 -----		179,374
1970 -----		217,305
1971 -----		190,425
1972 -----		230,475
1973 -----		204,858

Mrs. HANSEN. Is this visitation largely from in and around Washington, D.C., or is it visitors from around the world?

Mr. RIPLEY. International.

Mrs. HANSEN. It is a very spectacular collection, is it not?

Mr. RIPLEY. It is one of the two finest in America in its field.

Mr. BLITZER. Attendance has increased over the last several years, I suppose because of the interest in China and also because of the 50th anniversary program of the Freer.

ARCHIVES OF AMERICAN ART

Mrs. HANSEN. You propose an additional \$43,000 and one position for the Archives of American Art. Is this your same support program?

Mr. BLITZER. Yes it is.

OFFICE OF THE ASSISTANT SECRETARY FOR PUBLIC SERVICE

Mrs. HANSEN. You have an increase of \$90,000 and three positions for the Office of the Assistant Secretary for Public Service.

Mr. EUELL. If I may respond to that question, last year, if you recall, I mentioned the need for the Office of Public Service to advance its efforts in media development. In other words, we recognize our responsibilities to move ahead in media development in terms of educational films, film strips, and this kind of educational activity. That is why I am asking for the remedial support person. We need another person in education who can coordinate throughout the Institution all of the educational efforts that are being made in the various bureaus.

There are 10 bureaus all doing their own programs in education based on the museum and its functions. With this person we feel there we can provide a central function to coordinate and to act as liaison.

ANACOSTIA NEIGHBORHOOD MUSEUM

Mrs. HANSEN. The next one we will discuss is the Anacostia Neighborhood Museum. How many volunteers do you have in the Anacostia Neighborhood Museum to help you?

Mr. RIPLEY. I know we have quite a considerable number.

Mr. EUELL. I don't have an exact figure, Madam Chairman, but we do have very active community participation.

Mrs. HANSEN. Do you want to place it in the record?

Mr. EUELL. Yes.

Mrs. HANSEN. The committee takes quite an interest in this Museum. Also place in the record the number of visitors you have.

Mr. EUELL. We have that information.

Mrs. HANSEN. And you have special programs out there, don't you.

Mr. EUELL. Yes; we have mobile units.

Mrs. HANSEN. That is right. Will you place the number of those in the record, too.

Mr. EUELL. Yes; we will be pleased to do so.

[The information follows:]

ANACOSTIA NEIGHBORHOOD MUSEUM—VISITOR STATISTICS, FISCAL YEAR 1973

	District of Columbia	Maryland	Virginia	Other	Total
Group visits to the museum:					
Preschools.....	20	15			35
Schools.....	54		5	4	63
Colleges/universities.....	3				3
Other groups.....	20			2	22
Total group visits.....	97	15	5	6	123
Total attendance at Anacostia Neighborhood Museum.....					44,597
Visits by the mobile unit to schools:					
Schools.....	34	15	2		51
Colleges/universities.....	2			1	3
Other groups.....	21				21
Total group visits.....	57	15	2	1	75
Total number served by mobile unit.....					27,274

ANACOSTIA VOLUNTEERS

During its formative years, the Anacostia Neighborhood Museum utilized the volunteer services of many individuals in the community to assist in the varied elements involved in the structuring of a museum. As the museum has developed and its programs have been reorganized and refined, volunteer requirements and services have changed considerably. While the Anacostia Neighborhood Museum Associates, Inc., and the Youth Advisory Committee serve to advise and assist in developing policy, demands now are for volunteers with particular skills to perform specific services. The Anacostia Neighborhood Museum is fortunate to have within its community a large, willing corps of teachers, lecturers, artists, musicians, and other professionals who are available and who respond when called upon to provide art demonstrations, dance and music interpretations, to assist in installation of exhibits, to provide technical advice, to speak on a variety of subjects and to complement the staff of the museum. Although none of these individuals serve on a regular basis, more than fifty have given of their time and expertise during the past year.

ANACOSTIA SPECIAL PROGRAMS

Early in the development of the Anacostia Neighborhood Museum it became apparent that many members of the community were unable to come to the museum to share the information offered and to participate in its programs. Therefore, the mobile unit was created to serve the community with loan exhibits, educational aids and kits, speakers bureau, and videotape programs.

Among its special projects, the Anacostia Neighborhood Museum also has a children's room which attracts large numbers of preschool and primary school children from the District and from nearby Maryland and Virginia. The Education Department has developed activities ranging from programs on black history and urban environment to "Life in Anacostia" in which the children learn about the early history of Anacostia and participate in candle and soap-making, as well as butter and ice cream making, to demonstrate activities in which their ancestors were involved.

OFFICE OF THE ASSISTANT SECRETARY FOR MUSEUM PROGRAMS

Mrs. HANSEN. You have an increase of \$69,000 and three positions for the Office of the Assistant Secretary for Museum Programs. That is again your support?

Mr. PERROT. Yes, Madam Chairman. My office is developing 3 programs. 1 in conservation, making cassettes, films, and filmstrips available to institutions around the country, demonstrating the most advanced conservation techniques; another consists of 40 pretaped television programs on conservation which are also to be made available on a national basis.

Furthermore, we are conducting a training program through a series of workshops to which members of the professions, from around the country, are invited to participate. We intend to expand this program in response to the great demand which has been coming from virtually all sectors.

We also plan to develop a program specifically directed to members of the Indian community, meshing this program into our regular training program in museum techniques.

Part of the requested increase in staff is to cover these programs. In addition there are the regular programmatic functions of my office which I cannot delegate, at the present time, to any assistant.

CONSERVATION-ANALYTICAL LABORATORY

Mrs. HANSEN. An additional \$185,000 and seven positions is requested for the Conservation-Analytical Laboratory.

Mr. PERROT. Madam Chairman, the Secretary has referred to the needs of support functions throughout the Institution. I believe that there is no area that is in greater need than conservation. We ended the last fiscal year with 50 requests for analytical examination and treatment of objects, each averaging between 20 and 400 hours of work. This year we already have a backlog of 70 objects which probably will not be examined or treated. Again we estimate these to require in the area of 20 to 400 hours of work for each.

I have brought to show, if you would like, an object to demonstrate the complexity of conservation techniques and the time required to carry them out.

Mrs. HANSEN. We would be delighted to see this object.

Mr. YATES. Is this some of your glass?

Mr. PERROT. You are thinking of me, sir, in my previous assignment. I would have liked to have brought some glass today, but I felt it preferable to be less parochial and bring a vase which once was of bronze but which became completely mineralized, that is, turned back to an aggregate of corrosion products which completely concealed the design.

This object was in over 150 fragments and it took 250 hours to put it back in condition. The gluing together is only one aspect. The other was to stabilize the material and, hopefully, by special electrochemical treatment reveal its design. You see on this side the mask of a man. When the object arrived at the Smithsonian this mask looked like the one on the other side.

Mr. YATES. Is that Greek?

Mr. PERROT. This is Greek or Roman of the first century. It was found in southern Arabia and it is part of the material that Dr. Van Beek of the Department of Anthropology in the Museum of Natural History is working on.

Mr. YATES. Southern Arabia is where? Is that Saudi Arabia?

Mr. PERROT. No; that is beyond in the Yemen area.

Mr. RIPLEY. Southern Yemen.

Mrs. HANSEN. It is a beautiful object.

Mr. PERROT. Only a small proportion of the activity of the Conservation-Analytical Laboratory is involved with archeological objects.

The bulk is taken up with studying techniques and developing new methods of treatment for the many hundreds of thousands of objects in the collection of the Smithsonian which must be attended to.

If I might just elaborate one more point. Dr. Organ, who is head of the Conservation-Analytical Laboratory, has estimated that 14,000 man-years of conservation work needs to be done. Obviously we cannot vouch for that figure but it is in that order of magnitude.

At the present time we are terribly understaffed and we can't even examine carefully the new acquisitions which come into the Museums on a yearly basis.

I have another example here from the conservation laboratory of the National Collection of Fine Arts and the National Portrait Gallery. This is a before and after photograph of a portrait which required 20 weeks of treatment to restore it to presentable condition and guarantee its stability for the future.

Mr. YATES. Are you a restorer?

Mr. PERROT. Personally I am not.

Mr. YATES. I mean is your Agency a restorer?

Mr. PERROT. The Conservation-Analytical Laboratory does have a restoration section and they are adding among the positions that will be opened, one for paintings.

Mr. YATES. The reason I am asking is that I know several years ago when this huge painting on the stairs of the House was slashed by vandals the restoration was done by the National Gallery. I assumed that the National Gallery did most of the restoration for the agencies of the Government's art works but apparently you are in the field, too.

Mr. PERROT. The National Collection of Fine Arts, National Portrait Gallery, and the Conservation-Analytical Laboratory, and actually all conservation laboratories and restoration studios in the country, have a tremendous backlog of work. This is one of the reasons why a National Advisory Conservation Council has been created to assess the national needs and, hopefully, develop methods of training new conservators.

Mr. YATES. I visited Dr. Van Beek's archeological studio and I saw groups of volunteers who come up there periodically to glue pots together and I assume this is because you have nobody else to help you in this function.

Isn't that about right?

Mr. PERROT. It would be impossible to have a staff large enough to take care of the tens of thousands of archeological fragments that need to be matched before they can be assembled. The final assembly for permanent installation would be done by professionals, or at least under the very close supervision of professional conservators.

SMITHSONIAN INSTITUTION LIBRARIES

Mrs. HANSEN. You are requesting an increase of \$457,000 and 21 positions for the Smithsonian Institution Libraries. This is about a 39-percent increase in 1 year. What is the necessity for this increase?

Mr. PERROT. Madam Chairman, if I might comment on this, the

Smithsonian Libraries have approximately 900,000 volumes scattered over 60 different locations. At the present time there are 150,000 volumes which are uncatalogued and unprocessed. The staff of the libraries is approximately 66 percent of the optimum number for efficient service to the staff of the Smithsonian and to the scholarly fraternity.

In addition to that, the acquisition of books, serials, and so forth is no more than approximately 45 to 50 percent of the number desired by the staff and by the scholars that visit the curatorial departments and the libraries.

The request for 1975 is meant not to completely put us where we should be but to bring us a considerable step nearer to scholarly parity.

NATIONAL MUSEUM ACT

Mrs. HANSEN. A \$99,000 increase for the National Museum Act is proposed. Please comment on this need.

Mr. PERROT. Madam Chairman, the National Museum Act, as you know, has been funded for the last 3 years starting at \$600,000 up to \$798,000 and is now at \$901,000. Until now we have contributed yearly \$100,000 each to the National Endowment for the Arts and National Endowments for the Humanities. We expect, if the authorization goes through, that we will be able to receive, indeed, we hope to receive, the full authorized limit of \$1 million and believe that the contributions to the national endowments would no longer be necessary. They have concurred in this.

The program of the National Museum Act is meant to enhance the professional qualifications of museum personnel around the country. We do this through funding seminars, workshops, and through grants to teaching organizations.

This requested amount, plus the \$200,000 that has been going to the endowments will enable us to fulfill our mission and to turn down fewer, if I may say, of our customers who are eager to improve their qualifications.

Mrs. HANSEN. Do you and the Arts and Humanities Endowments work together in this area?

Mr. PERROT. We consult very closely to make sure that there is no duplication and no overlap and refer to each other's programs that seem to be more in keeping with the total philosophy of one or the other program.

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

Mrs. HANSEN. An increase of \$2,506,000 for the American Revolution bicentennial program is requested.

We would like to have the details. I want to say to the Smithsonian on behalf of myself that I think you have done an exceptionally good job in putting together your bicentennial program. I wonder, Dr. Ripley, if you could place in the record what some of the countries have spent on their centennial activities.

We have had Canada with her centennial. We have had Russia with 50 years. We have had Israel with 25, and we have had other countries with special celebrations.

Mr. RIPLEY. Yes.

[The information follows:]

AMOUNTS SPENT BY OTHER COUNTRIES FOR CENTENNIAL-TYPE ACTIVITIES

We have found two sets of figures which may be informative in relation to this question. The first set, from the Embassy of Canada, deals with the Canadian Centennial of 1967. Records show that \$431,904,683 was expended on the world exhibition in Montreal and that the Canadian Government provided an additional \$27,332,466 in matching grants to the nine provinces of Canada for local programs. (Income realized from the world exhibition in Montreal was \$221,239,872.) In the case of the latter, the Canadian Centennial Commission agreed to pay the provinces grants amounting to \$1 per capita of the population in each province toward local projects as long as the total grant did not exceed more than one-third of the total cost of the project. In addition, provinces could receive funds from other federal programs, but the total federal assistance could not exceed 50 percent. A special agreement was made with the northern territories: \$2 per capita and total Federal assistance up to two-thirds of the total project costs.

The second set of figures are from the Philadelphia Centennial in 1876. The records are less specific as to total costs, but what is available provides some interesting contrasts. The most frequently used figure is \$4,800,000 paid by the centennial board of finance for the exhibition. This does not include the Federal contribution, the costs of the Pennsylvania State contribution of Memorial Hall, the Philadelphia contribution of Horticultural Hall, any of the State contributions, nor any of the contributions from foreign governments. The Federal Government contributed approximately \$500,000 in 1874 for the Federal Building on the Centennial grounds. In 1875, the Government contributed another \$1,500,000 for the event itself. The total Federal budget that year was \$274,623,000, and \$1,500,000 is 0.5 percent of that budget. Following the centennial exhibition, the Federal Government requested that Philadelphia pay back the \$1,500,000 contribution. Suit was brought by the Government, the U.S. Supreme Court decided that the money was a loan, not a grant, and Philadelphia paid back the entire sum.

Mrs. HANSEN. I think it is important to remember that our Bicentennial hasn't turned into a parade of armed might. There will not be a lot of planes whizzing over. We have really tried to dedicate ourselves to the kind of thoughts that were in the Declaration of Independence.

Mr. RIPLEY. Yes.

Mrs. HANSEN. I get kind of exasperated sometimes to hear every time our Bicentennial is mentioned that we spent too much.

Mr. BLITZER. May I say, Madam Chairman, we are grateful for your remarks. If we are in good shape it is largely because of this committee that started putting us on notice years ago that we better do this.

Mrs. HANSEN. Mr. Blitzer, do you want to give us for the record some details of the Bicentennial?

Mr. BLITZER. Yes.

[The information follows:]

Details of the Bicentennial

Following is a listing and schedule of the Smithsonian Institution's Bicentennial program, The American Experience:

<i>Projects</i>	<i>Opening date</i>
Bicentennial exhibitions:	
A Nation of Nations; National Museum of History and Technology.	January 1976.
Ecology 200; National Museum of Natural History.	November 1975.
Centennial—1876; Arts and Industries Building.	May 1976.
The Artist and the American Scene; National Collection of Fine Arts.	April 1976.
Design in the City and The Americas; Renwick Gallery.	February 1976.
Revolutionary Period Exhibitions; National Portrait Gallery.	
"In the Minds and the Hearts of the People, 1760-1774"	June 1974.
The Continental Congresses-----	Spring 1975.
America after the Declaration-----	Spring 1976.
City with a Plan; Smithsonian Institution Building.	February 1976.
The Arts of Asia; Freer Gallery of Art-----	December 1975.
Traveling exhibitions:	
Information and Exhibit Systems; Smithsonian Institution Traveling Exhibition Service.	Spring 1974 on.
Object-Oriented Exhibitions; Smithsonian Institution Traveling Exhibition Service.	Do.
Anacostia Exhibits Design and Production Laboratory; Anacostia Neighborhood Museum.	Summer 1975 on.
Special Bicentennial projects:	
Festival of American Folklife; Division of Performing Arts.	Summer 1976.
Bicentennial Outdoor Museum; National Armed Forces Museum Advisory Board.	Do.
Major scholarly projects:	
"Inventory of American Paintings Before 1914"; National Collection of Fine Arts.	Summer 1976 (published).
"Bibliography of American Art", Archives of American Art.	Winter 1977 (published).
"Encyclopedia of North American Indians"; Center for the Study of Man.	July 1976 (published).
Sternwheeler Bertrand; National Museum of History and Technology.	
In exploratory stages:	
Television programs on the history of science and technology (National Museum of History and Technology).	1976.
International Bicentennial Conference on the Impact and Influence Abroad of American Culture and Institutions (Smithsonian Institution, American Council of Learned Societies, American Studies Association).	1976.
New Museum: National Air and Space Museum--	July 1976.

SMITHSONIAN BICENTENNIAL PROGRAM

Mr. BLITZER. If I may, Madam Chairman, I have a brief general statement and then I would like to ask Mrs. Hamilton to provide additional information. Could I do this very briefly?

This is the fifth time we have come before you, pursuant to your explicit instructions, to request a special Bicentennial appropriation. We are aware that the amount we are requesting this year is large in Smithsonian budget terms, but we believe that it is justified in terms of the program upon which we have embarked with the support of the Congress and the administration during the last 4 years. I am also happy to be able to tell you that, according to our present estimates, our request for fiscal year 1976 will be smaller than the present request; and of course, as we have all understood from the beginning, this special Bicentennial item will disappear completely from our budget after fiscal year 1977. Although I might say that the kinds of commemorative activity that you were talking about this morning going on into the 1980's seem to me part of our general responsibility anyway, and I hope we will be doing those things.

The budget request this year represents the peak of the entire 7-year program, 3 years up and 3 years down, and this is the middle one. It is large primarily because it is in fiscal 1975 that our emphasis will shift almost completely from planning to doing. It is in fiscal year 1975 that the bulk of our bicentennial exhibits will be constructed, our Bicentennial traveling exhibitions produced, and our major scholarly undertakings will begin to go into print, for example, the "Encyclopedia of North American Indians."

There are six features of our Bicentennial program that seem to us worthy of special mention. I should like to comment briefly on each of these in the light of our progress during the last year.

First, ours is in every sense a national program. At the urging of the Congress and the White House, we have expanded our plans for traveling exhibitions. More than 100—including exhibitions of objects, poster panel exhibits, and portfolios—are now contemplated.

Mrs. HANSEN. These will go throughout the country?

Mr. BLITZER. Correct, yes.

We are also working with other agencies on plans for traveling performances arising out of our Festival of American Folklife. And of course, even the exhibitions and performances planned for Washington will be enjoyed by millions of visitors from every part of the Nation. The President on the radio a couple of weeks ago, I think, estimated 45 million visitors to Washington. Probably as many as 5 million of those would be from abroad.

Second, ours is very much a Smithsonian program, which directly involves 12 of our bureaus. In spite of considerable urging, and even some temptation, we have very deliberately confined our program to those things that we know how to do. For this reason, we are actively cooperating with appropriate Government agencies and other institutions to bring to our program those resources and abilities that we may lack. Among those with whom we are working are the National Park Service, the Bureau of Wildlife and Sport Fisheries, the Depart-

ment of Labor, the Department of Transportation, the Department of Agriculture, the Department of Commerce, the Department of Defense, the State Department, the National Arts Endowment, the National Science Foundation, the National Capital Planning Commission, the Commission of Fine Arts, the Government of the District of Columbia, and such private organizations as the American Council of Learned Societies and the American Studies Association, and finally, of course, the American Revolution Bicentennial Administration and the White House Bicentennial Task Force. This wide range of cooperative relationships obviously strengthens our own program, and at the same time helps to avoid duplication.

Third, we believe our Bicentennial program is extraordinarily well balanced. It is designed to appeal to the millions of people of all ages and stations who will see our exhibitions and performances both here and throughout the country, as well as to scholars and other experts who will benefit from our research and publications for years to come. In subject matter too, our Bicentennial program is designed to embrace history, the arts, and the sciences in illuminating the meaning of America on its 200th birthday.

Fourth, our Bicentennial program speaks directly to many of the questions that most concern people at this moment in our history; to the question of ethnic diversity (through the Nation of Nations exhibit, the Festival of American Folklife, the Encyclopedia of North American Indians, the Anacostia Exhibits Laboratory); to the question of the environment, both rural and urban (in the Ecology 200 exhibit and the Design in the City exhibit, as well as in a number of traveling exhibits); and, above all perhaps, to the question of America's achievement and its meaning (in the National Air and Space Museum, the National Collection of Fine Arts' Inventory of American Painting, the special Bicentennial exhibitions of the National Portrait Gallery and the Museum of History and Technology, the 1876 Centennial exhibit, the Festival of American Folklife).

Fifth, I should point out again that the special Bicentennial funding we are requesting is temporary in nature. The funds we receive are used only for special Bicentennial purposes, and will not be part of our base appropriation when the Bicentennial era is over. We have made no permanent personnel commitments under this program.

Finally, I should point out that virtually every project for which we are asking an appropriation in fiscal year 1975 has already been supported by appropriations during the past 4 years. The only exceptions are the City with a Plan exhibition, for which we are requesting \$50,000; the "Bertrand" project, for which we are requesting \$60,000; and the Bicentennial Outdoor Museum, for which we are requesting \$244,000. Thanks to the \$3.2 million you have appropriated during the last 4 years, and thanks to the dedicated efforts of our staff and consultants, we are well on our way to realizing a national Bicentennial program worthy both of the Smithsonian and of the occasion.

BICENTENNIAL SCHOLARLY PROJECTS

Mrs. HANSEN. I am interested in what your scholarly presentation is going to be.

MR. BLITZER. I really would like to get Mrs. Hamilton into the act if I might.

MRS. HANSEN. Surely.

The reason I ask these questions is there has been so much criticism of the Bicentennial. Around the country there is an awful lot of criticism because we haven't done more.

MR. BLITZER. This is Mrs. Hamilton who can tell you about scholarly projects or any other aspect of the program.

MRS. HAMILTON. There are four major scholarly projects, one of which we have already spoken about this morning. That is the Encyclopedia of North American Indians which will be done in 20 volumes and will cover everything that is known to date about American Indians on the North American Continent.

MRS. HANSEN. This includes the Canadian Indians, too?

MRS. HAMILTON. Yes; it does. I might refer you to the section on the Encyclopedia in the Bicentennial booklet that you have. There are 20 volumes, as I said, each with a particular title, these are broken down in a number of different ways by tribes and by major geographical areas.

You see the Arctic, the subarctic region, the northwest coast, California, the Southwest in two volumes, the Great Basin, the Plateau, the Plains, the Southeast and the Northeast. There also will be four special volumes on Indians in Contemporary Society; on the Environment, Origins, and Population of Indians; the History of Indian-White Relations; and Indian languages, plus a volume on Indian Technology and Visual Arts.

In addition, there will be an introductory volume, two biographical dictionary volumes and an index volume.

MRS. HANSEN. This should be about the most thorough Indian presentation made, shouldn't it?

MRS. HAMILTON. Yes; it will without any question.

MR. RIPLEY. Nothing like it has ever been done before.

MRS. HAMILTON. It will become a reference work for the entire world on the history of North American Indians. In addition to that project, we are doing one which we consider one of the most fascinating, and one that really involves all of the country. This is the Inventory of American Paintings before 1914. The operation in Washington is very small with a small staff which is conducting all of the data processing. The major work is being done by volunteer organizations all over the country and the response to our appeal across the country has been immense. I would like to give you an idea of some of the kinds of organizations that are working with us. The American Association of University Women, for instance, on a national level designated the Inventory as a project for the association. There are now 12 State divisions and a number of individual local chapters which have taken the search for works of art on as special projects.

In the San Francisco Bay area, for instance, there is one single lady who happens to be interested in art who has gone about organizing friends and others all over the Bay area to conduct searches for American art works. There are high school groups, historical societies, museums, women's clubs, art councils, and so forth throughout the country working on the project.

There are now more than 50,000 listings on the inventory and in a computer data bank. By 1976 we expect we will have more than 150,000 listings. In 1976 we will publish the first directory to the inventory which will be available to scholars all over the world. The directory will list what works of American art are available and where they are found in the United States.

Our third major scholarly project is the bibliography of American art which will be, we hope, the most comprehensive volume to date in that field, too. It will include not only publications or books but, for the first time, will include catalogs from the museum world, periodical articles, visual material, and all kinds of available printed material on American art.

The final project is the Sternwheeler Bertrand which Mr. Blitzer mentioned.

EXHIBITIONS AND OTHER BICENTENNIAL PROJECTS

Mr. BLITZER. If you would like, Madam Chairman, Mrs. Hamilton could run briefly through all the individual projects that make up this Bicentennial.

Mrs. HANSEN. No; this is fine, but would you show us your charts?

Mrs. HAMILTON. We thought this would make it easier to display our overall program. The first chart shows what will be going on in Washington. It shows all of the major exhibitions of which there are 11, 1 or more opening in each of the public museums in the Smithsonian complex, and 2 special projects which include the Festival of American Folklife and the Bicentennial Outdoor Museum, and then added to that is the opening of the National Air and Space Museum. I might add that we really begin the recognition of the Bicentennial period this June when our first major exhibition opens in the National Portrait Gallery. It is entitled "In the Minds and the Hearts of the People."

The Bicentennial program as planned in a public way climaxes with the opening of the National Air and Space Museum on July 4, 1976.

Mrs. HANSEN. That is why I congratulate them on the work they do.

Mrs. HAMILTON. All of these things will be happening.

Mr. YATES. I must say I think that is a magnificent presentation. I think it is just one example of what seems to be a wonderful project.

Mrs. HANSEN. That is what I said. I congratulated them on the work they had been doing which they put together.

Mrs. HAMILTON. The other chart somewhat graphically describes the programs which have national impact and indeed, in some cases, international impact.

Mrs. HANSEN. Will your traveling exhibitions reach every section of the country?

Mrs. HAMILTON. Yes.

Mrs. HANSEN. How about Alaska?

Mrs. HAMILTON. Yes; we do have customers there. We maintain a mailing list which now numbers in the neighborhood of 6,000 listings. All of these exhibitions will be promoted through our own mailing list and, in addition, the American Revolution Bicentennial Admin-

istration through its information system is promoting the programs we are making available on a national level.

Mrs. HANSEN. I think it is very good.

Thank you both very much.

NATURAL HISTORY BUILDING ESCALATOR

Mr. BLITZER. Would you indulge me for one more moment.

There is something we would like to get in the record. A small point under the Bicentennial.

On page 7 of our booklet on the Bicentennial there is a floor plan of the Bicentennial exhibit in the Museum of Natural History. It is called Ecology 200 U.S.A. Its purpose is to show what man has done to the land, choosing as a kind of particular case, a study of the confluence of Rock Creek and the Potomac River.

If you can make out on the right side of that floor plan between the 1776 habitat and the 1976 habitat there is a rather dimly drawn in rectangle. That is an escalator, we hope, and I would like to say a word about that.

This is the largest exhibit hall in the Museum of Natural History. It seemed a perfect place to have the Bicentennial exhibit because it immediately confronts the people who come in from Constitution Avenue. Probably with possible restrictions on Mall parking and what not, there will be more and more people using this entrance. It is where we think the exhibit should be but this space has problems. The corridor comes to an apparent dead-end now.

If visitors walk through the exhibit they are really up against a circular wall of an auditorium. The other problem is that people coming into the Museum from the Mall side into the Rotunda may not know the exhibit is down on the floor below.

In developing the plan for this exhibit as recently as this winter the people in the Museum of Natural History decided the solution to both of these problems would be to have an escalator as shown on this plan which would lead from the elephant area in the Rotunda down into this exhibit.

We have included about \$165,000 in our Bicentennial request which would cover the cost of the escalator but we are a little uncomfortable because normally capital expenditures don't come in this budget.

Mrs. HANSEN. It will remain in the building though?

Mr. BLITZER. That is right. If the Committee wanted to move the escalator project and funding over into our restoration account that would be perfectly fine. We would very much like to have the escalator somewhere in the budget.

BICENTENNIAL FUNDING FROM OTHER AGENCIES

Mrs. HANSEN. Do you receive any additional funds for the Bicentennial program from other Federal agencies, and if so, how much?

Mr. BLITZER. I would like to supply that for the record. In some cases, and you were mentioning the Department of the Interior, the Folk Festival, for example, is jointly sponsored by the National Capital Parks and the Smithsonian, as you know. We both contribute

financially to it, but that is not a contribution, I believe, to the Smithsonian. It is simply a joint enterprise.

I can supply you a list.

[The information follows:]

FUNDS FOR BICENTENNIAL PROGRAM RECEIVED FROM OTHER FEDERAL AGENCIES

We have received funds from other Federal agencies for the Smithsonian's Bicentennial program. These funds so far have been confined primarily to support for the Festival of American Folklife as follows:

Agency	Fiscal year	Amount
National Park Service (cosponsor of festival).....	1973	\$15,000
	1974	62,800
Department of Labor (for working Americans segment).....	1974	175,000
Department of Transportation (for working Americans segment).....	1974	75,000
American Revolution Bicentennial (for development of touring elements of festival to other areas of the country).....	1973	22,700
	1974	200,000
Total.....		550,500

Over the next 3 years, negotiations for more funding to support segments of the extended 1976 festival will continue with the above agencies and organizations as well as with the Department of Agriculture for the segment on regional America and the National Endowment for the Arts on the development of ethnic festival programs for other parts of the country.

In addition, it is anticipated that the National Capital Planning Commission will contribute \$35,000 in fiscal year 1974 toward research for and development of the City with a Plan exhibition in the original Smithsonian Building.

The National Science Foundation provided the Institution with a grant for \$100,000 in fiscal year 1974. The funds are being used to conduct a feasibility study and develop content for possible television programs on the history of science and technology.

Finally, substantial funding support covering the next 3 years will also be needed from the American Revolution Bicentennial Administration to manage international exhibitions coming from abroad in recognition of the Bicentennial. This operation would be directed by the Smithsonian Institution Traveling Exhibition Service.

OFFICE OF THE TREASURER

Mrs. HANSEN. Numerous small increases are being requested in the Administrative and Support Activities area.

You are requesting an additional \$178,000 and six positions for the Office of the Treasurer.

Mr. WHEELER. Madam Chairman, \$50,000 of that is for increased postage for the Institution as a whole, practically a noncontrollable item arising from rising correspondence as new bureaus open and public interest in the Smithsonian increases. We are also asking for \$102,000 and six positions for accounting personnel. I have reviewed the record of the last 6 years and I find that we now have the same number of Federal employees on board in the Treasurer's office as we had in 1968 in spite of the very large increases that we have had in program activities and in the number of personnel, payroll requirements and so forth.

I might say we have two less people in our payroll department now than we had in 1968 by virtue of computerizing, et cetera. The fact of the matter is that we have been able to survive only by adding people with our private funds disproportionately to the Federal

activities and part of this increase is requested to put some of these people properly on the Federal roll that we have had to temporarily carry on the private side. The additional \$26,000 of the \$178,000 total is the known increased payment required in fiscal year 1975 to the U.S. Department of Labor's Office of Employee Compensation for injury and death payments to Smithsonian employees.

OFFICE OF PERSONNEL ADMINISTRATION

Mrs. HANSEN. Please explain the need for \$81,000 and three positions for the Office of Personnel Administration.

Mr. BROOKS. Mr. Ault, Director of Support Activities, is here to answer that question.

Mr. AULT. Madam Chairman, we are asking for two additional personnel management specialists to enable us to do a little better job on compensation and classification studies, and to handle grievance and appeal and disciplinary cases, and one secretary to augment our clerical staff.

Mrs. HANSEN. How many grievance appeals do you have per year?

Mr. AULT. This past year, Madam Chairman, we had a total of 19 cases.

Mrs. HANSEN. Were all of them settled satisfactorily?

Mr. AULT. Yes, Madam Chairman.

OFFICE OF PROTECTION SERVICES

Mrs. HANSEN. An increase of \$739,000 and 82 positions is requested for the Office of Protection Services. This office has been expanding at a faster rate than any of your other activities during the last 2 years. What is the necessity for another large increase this year?

Mr. BROOKS. Mr. Burke.

Mr. BURKE. Our vandalism rate is beginning to come down. We did have problems in vandalism but this is not our major problem. Our problem now is crimes against people. An example is young hoods from the locale coming down and joining a school group that is touring the museum, catching one or two kids off to the side, and threatening them unless they give them their money. Fifty cents, a dollar, and the like, and then getting away before we can apprehend or even locate them. They don't do this in the face of a guard, a uniformed guard, and the like, so last year I placed a group of my guards, male and female, into plainclothes. This decreased considerably my level of protection for the arts and the like, but we have seen a considerable decrease in this type crime. We have summer coming on us again and there is a requirement now for this type of a service, a plainclothes force to support the guard force.

The museums are expanding and so are our storage facilities. Consequently, additional guards are required. Many of our valuables are not in the main museums but are in separate storage buildings that also have to be guarded and protected.

[Discussion off the record.]

Mr. BURKE. In addition, I would like to comment briefly on the trends in museum crimes. Over the past year there have been 548 objects or collections reported as having been stolen from 67 museums in the United States. These crimes are no longer just thefts for profit but some are thefts related to ideological causes.

Mrs. HANSEN. In other words, where you once just had to protect your museum exhibits you have now people protection problems.

Mr. BURKE. In addition we will have protection requirements of the National Air and Space Museum. Thirty of these positions asked for are to support the opening of that museum. When you divide the 30 positions requested by 5, the number of guards required to man a post over a 24-hour period every day, it means I am only getting 6 guard positions to open that big building and there are 6 doors to the building alone. So that ends up with the six men guarding doors. The requested increase for personnel is just not as large as it appears when you look at it.

Mr. YATES. How big is that museum? It is enormous, isn't it?

Mr. BURKE. Yes.

Mr. YATES. How can you secure it with only six people?

Mr. BURKE. Sir, we will be coming in next year for the next phase of guard staffing.

Mr. YATES. This is the first phase.

Mr. RIPLEY. Yes.

Mrs. HANSEN. Why do you need the 30 guards for the new Air and Space Museum now when it isn't scheduled to open until July 4, 1976?

Mr. BURKE. Objects from the collection and the exhibits begin to go into the building as soon as the building is ready so we must guard it when it is turned over to the Smithsonian.

Mr. YATES. Isn't that opposite to what I just asked you?

I asked how you could do it with six people and you said you were just opening. What is the time span?

Mr. RIPLEY. The contractor will hand it over to us during fiscal 1975 but it will be a year from that time before it will actually be opened but when it is turned over there will be objects in it so we have to guard it but not as comprehensively as we will have to when it is open to the public the next year.

Mrs. HANSEN. Please insert in the record by grade, title, and facility assignment the 482 permanent positions you are requesting for the Office of Protection Services.

[The information follows:]

DISTRIBUTION OF PROTECTION SERVICES POSITIONS
FY '75
(482 Positions)

1. Office of Protection Services (5 positions)

Director, OPS - GS-15
Assistant Director, OPS GS-14
Administrative Assistant - GS-12
Secretary - GS-7
Clerk-typist - GS-3

2. Health and Safety Division (13 positions)

Chief, Safety and Health - GS-14
Safety Management Officer - GS-13
Fire Safety Engineer - GS-13
Fire Inspector (3) GS-7
Physician GS-15
Registered Nurse (4)
1 RN GS-9 (NHIB)
1 RN GS-7 (NMHT)
1 RN GS-6 (Hirshhorn Museum)
1 RN GS-6 (NASM)
Statistical Clerk GS-7
Secretary GS-6

3. Protection Division (464 positions)

A. Headquarters (29 positions)

1. Office of the Chief (2 positions)

Chief, Protection Division GS-14
Secretary GS-6

2. Administrative Branch (6 positions)

Administrative Officer, Assistant Chief, Protection
Division GS-12
Training Instructor GS-9
Administrative Clerk GS-6
Supply Technician GS-7
Clerk-typist (2) GS-4

3. Technical Branch (5 positions)

Alarm Systems Specialist GS-12
Alarm Systems Technician WG-11
Locksmith (3) WG-11

4. Investigative Branch (4 positions)

Chief, Investigator GS-11

Investigator (Policeman) GS-6
 Investigator (Policeman) GS-5
 Clerk-Steno GS-4

5. Fire and Burglar Alarm Response Control Center (12 positions)

Operations Officer GS-12
 Assistant Operations Officer GS-10
 Control Room Operator (6) GS-7
 Control Room Operator (4) GS-6

B. Policeman/Guards in Museum (435 positions)

1. National Museum of Natural History (88 positions)

Policeman/Guard Supervisor GS-9 (1)
 Policeman/Guard Supervisor GS-7 (5)
 Policeman/Guard Supervisor GS-6 (8)
 Policeman/Guards GS-5 (36)
 Policeman/Guards GS-4 (36)

2. National Museum of History and Technology (93 positions)

Policeman/Guard Supervisor GS-9 (1)
 Policeman/Guard Supervisor GS-7 (5)
 Policeman/Guard Supervisor GS-6 (8)
 Policeman/Guards GS-5 (40)
 Policeman/Guards GS-4 (39)

3. Fine Arts and Portrait Galleries Building (55 positions)

Policeman/Guard Supervisor GS-9 (1)
 Policeman/Guard Supervisor GS-7 (3)
 Policeman/Guard Supervisor GS-6 (5)
 Policeman/Guards GS-5 (23)
 Policeman/Guards GS-4 (23)

4. New National Air and Space Museum (30 positions)

Policeman/Guard Supervisor GS-9 (1)
 Policeman/Guard Supervisor GS-7 (2)
 Policeman/Guards GS-5 (14)
 Policeman/Guards GS-4 (13)

5. Southside Mall (116 positions)

a. Arts and Industries Building (41 positions)

Policeman/Guard Supervisor GS-9 (1)
 Policeman/Guard Supervisor GS-7 (5)
 Policeman/Guard Supervisor GS-6 (6)

Policeman/Guards GS-5 (15)
 Policeman/Guards GS-4 (14)

b. Smithsonian Institution Building (12 positions)

Policeman/Guards GS-5 (6)
 Policeman/Guards GS-4 (6)

c. Freer Gallery of Art Building (20 positions)

Policeman/Guard Supervisor GS-6 (2)
 Policeman/Guards GS-5 (9)
 Policeman/Guards GS-4 (9)

d. Hirshhorn Museum Building (40 positions)

Policeman/Guard Supervisor GS-7 (3)
 Policeman/Guard Supervisor GS-6 (5)
 Policeman/Guards GS-5 (16)
 Policeman/Guards GS-4 (16)

e. Old Air and Space Building (3 positions)

Policeman/Guards GS-5 (1)
 Policeman/Guards GS-4 (2)

6. Off.-Mall Facilities (53 positions)

a. Renwick Museum Building (20 positions)

Policeman/Guard Supervisor GS-6 (2)
 Policeman/Guards GS-5 (9)
 Policeman/Guards GS-4 (9)

b. Anacostia Museum Building (6 positions)

Policeman/Guards GS-5 (3)
 Policeman/Guards GS-4 (3)

c. Offices and Warehouses Away from the Mall (27 Positions)

Policeman/Guard Supervisor GS-7 (1)
 Policeman/Guard Supervisor GS-6 (7)
 Policeman/Guards GS-5 (10)
 Policeman/Guards GS-4 (9)

OFFICE OF FACILITIES PLANNING AND ENGINEERING SERVICES

Mrs. HANSEN. You are requesting a \$111,000 increase and three positions for the Office of Facilities Planning and Engineering Services. You did discuss that a little bit earlier. Do you want to add anything to that?

Mr. RIFLEY. Mr. Ault, would you like to explain that in more detail.

Mr. AULT. Madam Chairman, this is one of the management improvements by reorganization we attempted to achieve in this past year that Mr. Ripley referred to in his opening statement. This was a redivision, reorganization, and restructuring of what used to be called the Building Management Department.

This office from what used to be that department is concerned with the longer range planning and the engineering work that we must do on not only the very large construction and restoration and renovation projects, such as the rehabilitation of the Arts and Industries Building we are doing right now, but the many smaller repair jobs that go on from day to day that do require a certain amount of engineering. This increase is requested in order to provide us with an additional engineer estimator and two construction inspectors to follow through on contracts and the in-house construction supervision that we undertake in this office.

OFFICE OF PLANT SERVICES

Mrs. HANSEN. You show an increase of \$700,000 and 85 positions for the Office of Plant Services. Please explain this need.

Mr. AULT. This office was also a part of the Buildings Management Department and, as Mr. Ripley pointed out, we became aware this last year of the fact that the support side of the house over the past several years had lagged considerably behind the dramatic program changes that had taken place within the Smithsonian.

In recognition of this need to catch up, emphasis is being put on support this year and with the additional buildings and the additional exhibits that have been opened over the past several years, this is an attempt with 44 of these positions to enable us to take better care of our buildings and offer better and safer facilities to the public visiting us. The request also includes 31 new custodial and mechanical jobs for the new Air and Space Museum as a companion to the initial protection staffing.

VISITATION TO THE SMITHSONIAN

Mrs. HANSEN. Will you place in the record your visitations, Dr. Ripley, year by year since 1964? I think the 10-year period will be very interesting to look at.

Mr. RIPLEY. We would be very glad to. We have records of this and we will supply them for the record.

[The information follows:]

Smithsonian visitors

Fiscal year:	Visitors
1964 -----	15, 863, 195
1965 -----	18, 203, 713
1966 -----	17, 200, 854
1967 -----	18, 362, 586
1968 -----	16, 573, 000
1969 -----	15, 480, 730
1970 -----	18, 633, 000
1971 -----	18, 851, 208
1972 -----	20, 085, 323
1973 -----	20, 202, 967

Mrs. HANSEN. Mr. Yates.

HORTICULTURAL SERVICE

Mr. YATES. Madam Chairman, I just want to ask one question with respect to Plant Services. I noticed that they are establishing a horticultural service. Is that correct?

Mr. RIPLEY. Yes, we wish to develop the limited capability that we now have to beautify our grounds and buildings for the public.

Mr. YATES. Does this mean you are going to construct greenhouses and so forth?

Mr. RIPLEY. No, not at this time. We have no plans to establish greenhouses. We already have some small greenhouses in which we can put seed plants and bedding plants. These have existed for many years.

Mr. YATES. Where are they?

Mr. RIPLEY. These are in the south yard behind the original Smithsonian Building where the Radiation Biology Laboratory quarters were before they moved out to Rockville. We are using them quite happily now for seeding and bedding purposes. We have some greenhouses at Hillwood which we have now inherited through the estate. We would like to put up a small greenhouse or two eventually in Silver Hill when we develop our conservation and research facilities out there.

But the horticultural services have been much developed by trading back and forth with the National Park Service and other places that already have nurseries and facilities available and they are happy if we have a horticulturalist on the staff to give him things which actually they have in surplus from time to time, such as extra plants, extra bulbs, and things of this sort.

We have found some palms, for example, which have been growing happily for about 12 years in a particular greenhouse area quite far away from here that we think we can use in the Bicentennial exhibition in the old Arts and Industries Building. They are perfectly willing, providing we can transport them, just to give them to us. So it is largely a matter of having a trained staff on the spot.

VALUATION AND INVENTORY OF SMITHSONIAN COLLECTIONS

Mr. YATES. I notice you have an appropriation request for a trained moving force, too.

Mr. RIPLEY. Yes.

Mr. YATES. I would think that would be desirable because you possess invaluable things. Incidentally, while I use the word "valuable," I don't know whether I asked you this question last year.

Is there any idea as to the value of the Smithsonian's possessions?

Mr. RIPLEY. I wouldn't dare to put a monetary value on it.

Mr. YATES. It would be interesting to know it in a sense because your appropriation is growing every year.

For example, I know that Mr. Blitzer came in here with an appraisal of the Hirshhorn works of art which was a pretty substantial sum of money in itself but, my goodness, this is only a drop in the Smithsonian bucket.

Mr. RIPLEY. That is right.

Mrs. HANSEN. How do you put a value on something that was here in, say, 1635 or 1640 which is irreplaceable?

Mr. RIPLEY. Of course it would be an enormous task to try and figure out what the flag that flew over Fort McHenry is worth. I have been worried about that in the past from the vandalism standpoint and things like that. How do you figure it out? It is just like the Archives worrying about what the Constitution and the Declaration are worth. We must have some historic documents of various sorts which are incalculable in value, let alone our collection of art work, stamps, coins, jewels, gem stones, minerals, and historical objects.

I don't know how you would really begin. You could say many millions of dollars.

Mr. YATES. Do you have an inventory, incidentally, of everything you have.

Mr. RIPLEY. We attempt to have an inventory of everything that we have.

Mr. YATES. How often do you take inventory to see whether it is still intact?

Mr. RIPLEY. From time to time we re-do the inventory in particular departments or divisions. We don't, for example have an inventory of every shell that we have or every insect that we have or every potsherd in the archeology department. We simply would have those in clusters or groups, let us say.

But the numbers of fish, let us say, or numbers of birds or mammals, things of this sort, are catalogued so that we do know that we have 650,000 specimens of, let us say, birds.

Mr. YATES. How often do you take an inventory?

Mr. RIPLEY. That is up to the curators in the individual department.

Mr. YATES. Do they take inventory?

Mr. RIPLEY. They do. We have staff in all these departments and divisions.

Mr. YATES. As Mr. Ripley points out, these are pretty valuable things and I keep envisioning something like happens in the movies where somebody comes in through the roof and takes your valuable objects away and you don't even know they are missing.

Mrs. HANSEN. I think if you advertise the monetary value you will have more thieves. Isn't this correct?

Mr. RIPLEY. Yes. If we publish or really attempted to establish it, I think it would be disastrous.

Mr. YATES. We know the Hirshhorn just lost a couple of paintings.

Mr. RIPLEY. And sometimes that is due to publicity. It is very difficult to tell. People get the idea that something is valuable. You remember there was a time when there was a movie about catching a thief.

Mr. YATES. That was what I had reference to, was the thieves that came through the ceiling on a rope and that is why I wonder whether or not your curators knew from time to time whether there had been a disturbance in their collections or depredation.

SECURITY PROTECTIONS

Mr. RIPLEY. In jewels and gems we have carefully guarded quarters and you have to have a special pass to get in and there are locked doors and things of that sort. The same precautions exist with the coins and similar sorts of valuable collections. There is a great deal of internal security.

Mr. BLITZER. If I might add, one technique that is used in the Museum of History and Technology, for example, is visible storage so that you know there is a regular arrangement and if there is a gap you immediately see it. They do this, for example, with guns so that in every cubbyhole there must either be a gun or piece of paper saying here it is so that the curator knows where it is or if something is missing.

In the Hirshhorn Museum we have what I think is probably the best storage facility of any museum and again one will be able to see the items.

Mr. YATES. By and large you do have a very good security system throughout the Smithsonian, don't you?

Mr. RIPLEY. We try to make it as good as we can. That is all I can really say.

Mrs. HANSEN. You haven't been troubled yet by fanaticism, have you?

Mr. RIPLEY. We had a man who attacked a snake once because he decided it was one of his enemies. He broke a window of a glass case and got in and started chopping the snake up into pieces as an enemy of his.

I would call that fanatic.

Mr. BLITZER. I think someone set fire to a banner from Resurrection City.

Mr. RIPLEY. We have had some thefts.

Mr. YATES. Nothing of any real value?

Mr. RIPLEY. Minor.

Mr. YATES. I am sure the valuable things are closely protected.

Mr. RIPLEY. Well, this is a constant worry. It gives me the willies to hear you even mention this, Mr. Yates.

Mr. YATES. I don't want you to have the willies.

Mr. RIPLEY. It is a nerve-racking business worrying about this.

Mr. YATES. I know it is a nerve-racking thing because I can see what happened in this Capitol when somebody just walked through and slashed a big beautiful painting.

Mr. RIPLEY. During times of tension we have been very worried about open exhibitions.

Mr. YATES. I was pleased with the testimony of the head of your guard service. I think he is a responsible and able person. The system sounds like it is pretty well run.

Mr. RIPLEY. Mr. Burke has pointed out that these things ebb and flow in sort of cycles. Certain kinds of thefts or crimes or petty felonies or whatever they may be come and go.

SPECIAL FOREIGN CURRENCY PROGRAM

Mrs. HANSEN. We will insert pages B-1 to B-5 in the record.
[The pages follow:]

SMITHSONIAN INSTITUTION
MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

1973 Appropriation.....\$3,500,000	
1974 Appropriation.....\$4,500,000	Equivalent in "Excess"
1975 Estimate.....\$4,500,000	Foreign Currencies

An appropriation of \$4,500,000 in foreign currencies determined by the Treasury Department to be in "excess" of the normal needs of the United States is requested for FY 1975. The appropriation will be used for two general purposes:

1) To continue a program of grants to United States institutions for field research in those countries where "excess" local currencies are available. The research will be performed in the following general areas of Smithsonian Institution interest and competence:

Commitment of Funds by Program Area
(dollar equivalents)

	<u>FY 1966-73 Cumulative Commitments</u>	<u>FY 1974 Estimated Commitments</u>	<u>FY 1975 Appropriation Request</u>
Archeology and Related Disciplines	\$11,376,429	\$1,400,000	\$1,300,000
Systematic and Environmental Biology	7,187,454	1,400,000	1,500,000
Astrophysics and Earth Sciences	1,126,284	500,000	450,000
Museum Programs	261,530	190,000	240,000
Grant Administration	<u>110,807</u>	<u>10,000</u>	<u>10,000</u>
	\$20,062,504	\$3,500,000	\$3,500,000

2) To make the second of four annual payments, each of \$1,000,000 equivalent in "excess" Egyptian pounds, which together would constitute the final United States' contribution to UNESCO's international campaign to preserve archeological monuments in Nubia which are inundated by Nile River waters regulated by the Aswan Dam. These payments would support the preservation of the monuments on the Island of Philae as proposed by President Kennedy in his letter to the Congress dated April 6, 1961.

THE PROGRAM OF GRANTS FOR FIELD RESEARCH

In fulfilling the first general purpose of this appropriation, the Smithsonian Foreign Currency Program has awarded 401 grants to United States institutions for field research totalling more than \$20,000,000 equivalent in "excess" foreign currencies over an eight-year period. These grants have benefited 220 museum, universities, and research organizations in 32 states and the District of Columbia. Benefits include major additions to the study collections of more than 28 museums and universities in 18 states and the District of Columbia. The grants have resulted in 452 scientific publications.

Many Smithsonian "excess" foreign currency grants support research which contributes to United States national programs. Among these are the Department of the Interior's cooperative programs abroad under the Endangered Species Act of 1973, the

National Aeronautics and Space Administration's satellite tracking programs, the National Academy of Science's contribution to the International Biological Program, the national research particularly in systematic and environmental biology, and the Smithsonian-administered National Museum Act which is devoted to strengthening the museum profession in the United States.

In FY 1973 obligations for field research totalled about \$3,700,000 equivalent in "excess" foreign currencies. In 1974 grants to support ongoing and new field research projects are expected to total about the same amount. As of January 15, 1974, \$1,106,000 equivalent had already been obligated for field research. On that date awards totalling \$1,569,000 equivalent remained unfunded and proposals totalling an additional \$1,000,000 equivalent had been received.

An appropriation of \$3,500,000 for field research is essential for FY 1975 to support ongoing research and unfunded awards and to meet the persistent demand for funds to support new and meritorious research by United States institutions in the "excess" foreign currency countries. Research proposals in preparation total at least 64. This level of activity continues in spite of the removal of Israel and Morocco from the list of "excess" currency countries and the expected removal of Yugoslavia in the course of FY 1974.

The continuing interest in joint research is reflected in increasing numbers of requests for guidance and assistance in the preparation of Proposals for research in Egypt, India, Pakistan, and Poland.

In Egypt, fresh interest in joint research is emerging, particularly in the biological sciences. Proposals for research in Egypt in all Smithsonian sponsored fields, pending or in preparation, number 17.

For India, proposals pending or in preparation number 67, up from 36 a year ago. The major share of these proposals is for research in the biological sciences. The recent successful conclusion of negotiations between the United States and India on use of the United States-owned rupees gives promise of renewed consideration by India of joint research proposals and of an increase in Smithsonian grants for research there in FY 1975.

Growing interest in research collaboration in Pakistan is contributing to the momentum of new proposals in preparation. Two new archeological excavations were carried out there this past summer. Eighteen major proposals in all fields of Smithsonian interest are known to be in preparation.

Interest in collaborative research in Poland continues also with 11 major research proposals in preparation. In addition, the exchange of individual scholars reached a new high of 47 during FY 1973, up from 18 the previous year.

No increase in the "excess" foreign currency appropriation is requested for FY 1975 because it is estimated that new proposals likely to be funded in FY 1975 will be offset by the removal of Yugoslavia from the Treasury Department's list of "excess" foreign currency countries and the successful conclusion of research in other countries.

"Excess" foreign currency appropriations are an advantageous and unique source of research monies. They do not require new appropriations of tax dollars and do not add significantly to the President's budget total because the Commodity Credit Corporation reduces its appropriation request by an amount equal to the amount of foreign currencies expended. Delay in the use of the "excess" accounts means continuing losses to the United States Treasury as these accounts lose value through inflation and devaluation. Such monies are especially advantageous as a source of funds for

essential United States research abroad which does not adversely affect the United States balance of payments.

OUTSTANDING PROJECTS

Outstanding results of project receiving Smithsonian Foreign Currency Program support include:

1. Publication by Harvard University and the University of Iowa of the first volume of the Corpus of Ancient Mosaics of Tunisia making available to the public for the first time examples of these little known but outstanding, colorful and varied works of art of the Roman and Byzantine Empires.
2. Discovery by the University of Pennsylvania of remarkable information about the monotheism established by the Egyptian Pharaoh Akhenaten in the 14th century B. C. This information is emerging as individual building blocks bearing fragments of narrative scenes from the walls of Akhenaten's temple at Karnak are reconstructed like a jigsaw puzzle with the aid of a computer. The temple was systematically disassembled by Akhenaten's religious opponents after his death.
3. Publication of the first part of a six-volume revision of the basic handbook on the tropical flora of Sri Lanka (Ceylon). This Smithsonian revision of Trimen's Handbook to the Flora of Ceylon, will correct, on the basis of modern scientific research, the nomenclature of the major kinds of tropical plants everywhere in the world. These plants were first described by the Swede, Linnaeus, who is considered the father of modern systematic botany, in the 18th Century using specimens from Ceylon. This revised Handbook will greatly facilitate botanical research in the tropics which rests on accurate identification of each plant.
4. Organization of symposia, under National Academy of Sciences auspices, from which analytical publications of the results of research carried out under the International Biological Program are prepared. Smithsonian support has contributed to these symposia leading to publications on grassland, forest, desert, and tundra ecosystems and on biological productivity on land and in the water.
5. Field research in Yugoslavia for the Smithsonian's Folklife Festival presentation on the Mall in 1973 of folk dancers and singers from that country together with dancers and singers from American communities of Yugoslav origin. This program was the first of many to be presented in successive summers to culminate in a major Bicentennial festival in 1976 honoring the folk traditions of the American people which survive from the lands of their forefathers.

FINAL U.S. CONTRIBUTION TO UNESCO'S NUBIAN MONUMENTS CAMPAIGN

The Smithsonian is seeking a continued appropriation of \$1,000,000 equivalent in excess Egyptian pounds, in addition to the \$3,500,000 equivalent requested for grants for field research, as the second of four equal payments which together constitute the final United States' contribution to UNESCO's international campaign to preserve the temples on the Island of Philae.

The first payment of \$1,000,000 equivalent in Egyptian pounds for this purpose which was appropriated to the Smithsonian in FY 1974 was announced on November 16, 1973 by the United States representative at the twenty-second meeting of the Executive Committee for the UNESCO International Campaign for the Safeguarding of the Nubian Monuments.

The total cost of this salvage program will probably exceed \$16 million in convertible and local currencies. Some \$10 million of this total has already been

pledged by other nations including Egypt which has undertaken to meet one-third of the project's cost.

The salvage plan finally adopted by UNESCO's international advisory group, with the advice and concurrence of an American engineer, provides for a coffer dam to be erected around the Island of Philae to permit the lowering of the water for removal of the temples. They are then to be re-erected on the nearby Island of Agilkia in a setting like the original one. There they will be higher and safe from further erosion by the river and accessible to all.

Work has progressed satisfactorily on the salvage of the temples. The United States representative attending the first meeting of the Group of Archeologists and Landscape Architects for Safeguarding the Philae Temples in October 1973 at Aswan, Egypt, has reported that the work on the coffer dam was about 75 percent complete at that time. Preparation of the new site for the temples on the Island of Agilkia was more than 65 percent complete. Moreover, plans for the transfer of the temples to the new site revealed careful attention to preparation of the new site and to re-erecting the temples on that site in a manner nearly identical to that on the Island of Philae. The next meeting of the Philae salvage advisory group has been scheduled for April 1974 to coincide with the completion of the coffer dam and the lowering of the water covering the Island of Philae which will permit the start of the dismantling of the temples.

It is in the United States' interest to contribute to the preservation of the Temples of Philae because of their interest to the scholars of the United States. Moreover, by continuing cooperation in the Nubian Monuments Campaign, we maintain today's rich opportunities for American institutions of higher learning to conduct studies in Egypt and we enhance United States' cultural relations with that country. In response to Public Law 86-472, President Kennedy said in his letter of April 6, 1961, to the Congress that he considered it "to be in the interest of the United States to assist in rescuing these historic remains of a former civilization from destruction--and to join the international effort to conduct exploration and research in the threatened area of Nubia before it is submerged for all time." Today, in times of political unrest, the Smithsonian's request for funds to complete the United States' contribution to this international campaign takes on even greater significance in maintaining the basic cultural associations which are the most enduring form of contact between nations. In this context, the United States has already received the priceless Temple of Dendur from Egypt in appreciation for our Nubian Campaign support.

SMITHSONIAN PROGRAM PROCEDURES

This Special Foreign Currency Program appropriation request, as in the past, is based on budget projections for ongoing research and on pending and new research proposals which include firm research proposals, those postponed by lack of sufficient funds, and other sample or illustrative proposals based on firm indications of interest both within and without the Smithsonian. They represent the Institution's selection of possible projects which appear most promising for successful development and implementation during fiscal year 1975. A list of such projects is submitted as a supplement to the Smithsonian's fiscal year 1975 budget request. It should be noted, however, that actual implementation of these projects will be contingent upon three factors: review by the Smithsonian's national scientific advisory councils, review and approval by American embassies overseas, and appropriate cooperative arrangements with host-country institutions or governmental authorities.

MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

Commitments of funds by Country

	FY 1973 <u>Actual</u>	FY 1974 <u>Estimate</u>	FY 1975 <u>Appropriation Request</u>
Burma.....	0	\$12,000	\$12,000
Egypt.....	\$852,000	1,387,000 ^{/1}	1,862,000 ^{/1}
Guinea.....	0	2,000	8,000
India.....	1,440,000	1,238,000	976,000
Morocco.....	183,000	0	0
Pakistan.....	71,000	363,000	427,000
Poland.....	255,000	317,000	538,000
Tunisia.....	524,000	699,000	677,000
Yugoslavia.....	<u>392,000</u>	<u>482,000</u>	<u>0</u>
	\$3,717,000	\$4,500,000	\$4,500,000

^{/1} Includes payment to UNESCO of \$1,000,000 equivalent in excess Egyptian pounds for the international campaign to preserve the Nubian monuments.

PHILAE TEMPLE PROJECT

Mrs. HANSEN. You are requesting \$3.5 million for grants for field research and \$1 million for the second of four equal payments to preserve the temples on the Island of Philae.

Briefly summarize for the committee the accomplishments of the program during the past year also, tell us what has happened to the Egyptians and the temple.

Dr. CHALLINOR. Madam Chairman, if I might address myself to that, first the accomplishments this past year have been very much in line with the accomplishments in the past years since 1967. I would be pleased to discuss them.

First I refer to the Philae project. The coffer dam is now virtually complete. The dam is being built around the temple which is located in the middle of the lake. This will then be pumped dry and the temple will be moved to another island which has now been leveled and is ready to receive the temple that is to be moved.

The U.S. contribution to the Philae operation will be \$4 million worth of Egyptian pounds. The Russians will contribute \$500,000 equivalent in Egyptian pounds. In total, \$10 million has been pledged and Egypt will pay about \$5 million worth of their own pounds, about a third. This operation is proceeding very, very well. We had a report from a person who was at the site in the first week in March. He was very much impressed with the absolutely first-class engineering facilities they have available to remove this temple.

These pounds, as you know, are a pledge that the United States has made through UNESCO to make this move. The operation is proceeding well and reasonably on schedule.

Mrs. HANSEN. Is the first \$1 million spent completely?

Dr. CHALLINOR. Yes, Madam Chairman. Our contribution is being deposited in a UNESCO account from which the Egyptian Government is reimbursed for funds expended on Philae salvage. This is the second of the four U.S. payments that we are requesting. I did want to point out that we are not funding the whole operation. The Egyptians are putting in themselves about a third the cost.

Mrs. HANSEN. I know.

Dr. CHALLINOR. They are now waiting for our next pledged amount which is \$1 million worth of Egyptian pounds.

Mrs. HANSEN. These funds for 1974 are all obligated and expended?

Dr. CHALLINOR. We anticipate that by the end of this fiscal year they will be virtually all obligated.

Mrs. HANSEN. You aren't going to wait until June 30 to do it, are you?

Dr. CHALLINOR. I can say they are all going to be obligated.

Mrs. HANSEN. They are all obligated?

Dr. CHALLINOR. They will all be obligated in this fiscal year.

FOREIGN CURRENCY COUNTRIES

Mrs. HANSEN. Do all the countries you have listed on B-5 currently have "excess" local currencies available?

Dr. CHALLINOR. I will have to doublecheck that page. The countries listed there do have excess currencies available, yes, Madam Chairman, they do.

Mrs. HANSEN. Well, we have run out of them in Yugoslavia.

Dr. CHALLINOR. We have not run out of them quite yet, Madam Chairman. What we did was reserve dinars with the U.S. Treasury in order to carry out projects through 1974.

Mrs. HANSEN. The reason I ask is because we have some other programs in the Interior Department that are ongoing with Yugoslavia and with Poland. These are projects on mine safety, coal processing, mining techniques, and so on, so I wondered if they were still available.

Dr. CHALLINOR. Whether they are available or not for other users, Madam Chairman, I am not certain. In our case this will probably be the last year, that is, fiscal 1974, that Yugoslavia dinars will be available.

What we have done, as I said, is reserve dinars in the dinar account to finish in proper, orderly fashion the projects that we have already started but not yet completed.

Mrs. HANSEN. I wonder if they have thought about that.

Dr. CHALLINOR. I know this can be done. Whether they have done it or not I do not know.

SPECIAL FOREIGN CURRENCY PROJECTS

Mrs. HANSEN. Are these projects all done by American institutions, such as universities?

Dr. CHALLINOR. Museums, research organizations, yes, Madam Chairman.

Mrs. HANSEN. And they would not be done if this foreign currency were not available?

Dr. CHALLINOR. It is highly unlikely they would be done if the foreign currency was not available. What we did within the Smithsonian itself was poll our own researchers who have used this foreign currency and ask, "Would you be willing to spend your federally appropriated hard dollars and do this work."

Mrs. HANSEN. Mr. Yates has just remarked that the answer is "No."

Mr. YATES. For some of them.

Dr. CHALLINOR. It turns out that Smithsonian researchers say they would not spend their hard dollars to do this sort of research. This is work that really only can be done because the soft currency is available to do it.

NATIVE MIGRATION PROJECT

Mrs. HANSEN. You have an archeological project in Burma and that has been going on apparently since 1971. This is the University of Hawaii that is doing it. Can you give us exactly what your scholarly goal is there?

Dr. CHALLINOR. Burma is a place where there is excess currency.

As you know, it has been a very difficult country to work in. The researcher that is working there is a man from the University of Hawaii who had worked there before the war. He speaks the local

language and he is one of the first American researchers ever to get into Burma.

The archeology that he is doing ties in with his primary concern with the migration of people from Southeast Asia; mainly, Burma, southwestward across the Indian Ocean.

One of the theories is that the people who lived in coastal Madagascar, who were people with fairly light skin, were not originally from Africa but rather had migrated across from Southeast Asia during the monsoons, when the wind would blow them in a westerly direction to Madagascar. Then they would stay the year or part of the year until the monsoon wind changed and they could sail back across to Burma.

He has worked in Madagascar and what he is looking for is the relationship of artifacts that might turn up to indicate that some of the coastal people who lived on Madagascar had their roots in Southeast Asia.

This has to be done very, very slowly. There are relatively few places you can indeed work in Burma. The Central Government controls the land around Rangoon and Mandalay, but there has been relatively little control of the countryside by the Central Government so researchers are restricted where they can work in this particular country as well as the number of American scientists who can work there.

I think the project description that you have shows how much dollar equivalent we are talking about. I think the local currency is called kyat in Burma.

Mr. YATES. How much is that?

Dr. CHALLINOR. We are only talking here about \$11,000 since 1971. It is a relatively small operation and has to be small because American presence there, given the sensitivity of the Government, has to be at a very low profile.

This is one of the few archeological projects that have any American participation in Burma, or foreign participation for that matter.

ARCHEOLOGICAL PROJECTS

Mrs. HANSEN. You have two programs with the University of Pennsylvania. Do you want to give us a brief description of these?

Dr. CHALLINOR. The Akhnaten Temple project is a fascinating one, having to do with using computers to reassemble the wall of the temple. In this case the principal investigator was not a professional archeologist, but a retired businessman who became interested in archeology and was a computer expert and was able to code hieroglyphics into computer language. He would photograph a block of stone and code the position of the hieroglyphic that appeared on the stone in computer language. He then even went to the point of photographing stones from this temple that had been inserted in other buildings by people who had gone to the temple and taken stones that were lying around for use in building new buildings. By photographing those stones and then by use of a computer, he was able to reassemble almost the whole wall of hieroglyphics that gave the story of life in this particular era of Egypt.

This has been written up and a very excellent 16-mm movie made of this.

The story appeared with very good illustrations in the National Geographic some years ago.

Mrs. HANSEN. We seem to be picking your better ones.

Dr. CHALLINOR. It is fascinating work which is giving us information on what life was like in ancient Egypt. The Dra Abu El Naga project is somewhat similar. That is one they have been working on for almost a half century now, trying to understand some of the inscriptions in the study of these tombs. The Egyptians plan to open these tombs to tourists when the appropriate research has been done to allow them to be opened. It is a long term project.

Mrs. HANSEN. You show a project with the Southern Methodist University, Dallas, Tex.

Dr. CHALLINOR. What we are concerned with there is the cultural history of people who lived in the Nile Valley before the ancient Egyptians developed their civilization. We are trying to learn who lived there before the classical ancient Egyptians emerged and what sort of people they were.

We are looking for the very earliest neolithic cultures, campsites.

What the researchers do is walk along the river and say, "If I were living here 10,000 years ago where would I have built a camp." And then they start to dig and oftentimes they will turn up campsites.

This project has turned out some very interesting results which have been published by the Southern Methodist University Press in a large volume with some fascinating drawings and photographs of the kinds of things that these people actually ate, what sort of animals they hunted, what remains were found in the campsites, the kind of bones and so forth.

LINGUISTIC STUDIES

Mrs. HANSEN. You have budgeted linguistic research in India, with the Association for Asian Studies, Ann Arbor, Mich. It looks as if it might be kind of related at least to a project you have listed on page 17 by the University of Texas, Austin, Tex.

Dr. CHALLINOR. What we are interested in there in Southeast Asia is the tremendous complexity and amalgam of different cultures and languages and what we are trying to understand is how language develops and what relationships they have with each other.

The science of linguistics is becoming increasingly sophisticated and indeed we really have no explanation of why children learn to speak language as fast as they do. You all probably have known instances where, for example, a 3-year-old child won't say anything and then, all of a sudden, he will speak a complete sentence.

The indications seem to be that perhaps language is genetically coded for human beings. This is still theory. What we are trying to do is to get some idea of not just one language but mankind as a speaking higher primate. Where we have a whole series of complicated languages through this in turn we hope to find some clue on how man developed into a speaking creature.

These sorts of studies indeed overlap and interrelate between the Indo and the European languages. I want to emphasize that all the

research done in India, Yugoslavia, or wherever it is, has to receive the approval of the host country. These projects are not just the result of an American going in and saying, "This is what I want to do. Make way for me."

It has to be received in the host country and approved and a research collaboration established with local scholars and scientists.

WILD SHEEP AND GOAT PROJECT

Mrs. HANSEN. You are proposing a survey of the wild sheep and goat population by Utah State University at Logan, Utah. That is in Pakistan.

Dr. CHALLINOR. This is an interesting project by Utah State University. As you know, in the Rockies in back of Utah State we have mountain sheep. Mountain goats live somewhat farther north in your part of the country, Madam Chairman.

Mrs. HANSEN. We have mountain goats right in my own district.

Dr. CHALLINOR. I don't think mountain goats come down as far as Utah.

Mrs. HANSEN. No.

Dr. CHALLINOR. They have established a very elegant system of study at Utah State in their wildlife department and there we are simply helping them, with the encouragement of the Pakistanis who are putting a priority on this, to learn something more about the wild sheep that live in Pakistan.

In that part of the world, Pakistan, Persia, or Iran, and in the Near East is where we believe sheep were first domesticated, when man shifted from a hunter-gatherer into a farmer. One of the things we are trying to learn is what the first domesticated sheep were descended from, and the research there, of course, is on the genetic characteristics of these sheep. Ultimately it is hoped that these wild sheep can be managed in such a fashion as to develop a big game hunting industry in Pakistan or in that part of the world.

DESERT STUDY PROJECT

Mrs. HANSEN. You are proposing a "Systems Analysis of the Pre-Saharan Ecosystem of Southern Tunisia."

Dr. CHALLINOR. In southern Tunisia, the international biological program has been very concerned—this is an international effort—with the study of deserts and particularly with the spread of deserts.

Utah State in cooperation with the appropriate Tunisian Ministry has set up on the Tunisian border a study of the desertization of southern Tunisia. The Sahara is encroaching to the north and we think we have isolated the reason why the desert is encroaching.

What has simply happened there is that they have drilled some wells. The pipelines from these wells follow along the roads and at every thousand meters there is a sink hole so that people who travel along the roads can get water.

In historic times or even recent times people could only farm as far as they could walk and get back to their village each day because they couldn't carry enough water to keep them for more than a day or two away from the village.

Now they leave their village and can always get water where nobody lived before by simply putting their bucket down through the manhole. This means that a much greater area is now being farmed. They plow the land about 3 inches deep every year.

Every 3 or 4 years they have a good rainfall and they raise a good wheat crop but it is worth the gamble to plant wheat every year, even though maybe 2 out of 5 years they won't raise a crop, because they will make enough on it in the 2 or 3 years that it does rain.

With no vegetation left to hold the sand, particularly in the dry years, the desert advances. They even have snow fences to try and hold the sand back off the roads. This is southern Tunisia near the Libyan border.

When they plow the land they take up the little bushes and make a big bundle from it to feed the camels and donkeys that pull the plows.

TERTIARY MAMMAL PROJECT

Mrs. HANSEN. There is one here for the University of Colorado at Boulder, "The Late Tertiary Biochronology of Mammalian Faunas in the Western Mediterranean Area." This is again in Tunisia.

Dr. CHALLINOR. This is in Tunis in cooperation with the Tunis National Department of Geology, and the principal investigator of this is a well known paleontologist.

There they are working on the kinds of creatures, the kinds of mammals, that lived in north Africa in the very early days. We are talking about more than a half million years ago. We do know the weather has changed considerably and that it was then a rather damp and moist part of the world.

There were hippopotamuses and crocodiles and things like that living in north Africa and we have learned of this from the fossil record. The fossils are shared with the Tunisian Government and casts are brought back to this country. This is a fascinating project which has turned up all sorts of interesting things.

ISLAND MAMMAL PROJECT

Mrs. HANSEN. Here is a project being conducted by Texas Tech University, Lubbock, Tex., "Mammals of the Adriatic Islands and adjacent mainland of Yugoslavia."

Dr. CHALLINOR. The interesting thing here is that mammals and other forms of life that live on islands become isolated from their relatives on the mainland and adapt themselves very specifically to island life and in time become quite distinct species. We are trying to determine to what degree do animals that live on these islands differ from their relatives that live on the mainland.

Mr. RIPLEY. It is rather similar, Madam Chairman, to the work done on the offshore island of British Columbia and Washington by the mammalogists at Vancouver on the black-tailed deer.

Mrs. HANSEN. That is right.

Dr. CHALLINOR. I can give a lot more detail.

PRIMATE FOSSIL STUDIES

Mrs. HANSEN. No; this is fine. Here is one for Iowa State University at Ames, Iowa, "Stratigraphy and Geology of Siwalik Deposits in Northwest India."

Dr. CHALLINOR. The principal investigator has collaborated with Professor Simons from Yale University. He is collaborating with people from Iowa State. Some of the fossils that they have found are very early primate remains and we are fascinated now to see the relation of the very, very early manlike apes or ape-like men, depending which way you want to put it, to the discoveries in east Africa that Mr. Leakey and his colleagues have made.

In these hills during the rainy season it rains very hard and you can watch the stream banks erode, almost like spraying a hose on them as I understand, and watch the fossils show up. It is one of the great places in India for finding fossils.

THEATRICAL PROJECT

Mrs. HANSEN. You show here a "Theater in the Street," "Street Theater Around the World," and you are going to work with India on that project.

Dr. CHALLINOR. I am not too familiar with this because this is a little bit out of my science background. I can only say that the work that they are proposing to do has been reviewed by outside reviewers and they have deemed this a competent study.

Mr. RIPLEY. There is a foundation in Bombay called the National Cultural Center founded and supported partly by the Indian Government and partly by a foundation and I believe this must be in concert with them.

Wouldn't that be right?

Mr. EUELL. Yes. Further, I think the group has affiliations with the University of Hartford in Connecticut and their dance department and drama department. The work that they are studying, the interrelationships between dance movement and theater, is a very, very intricate and very beautiful form developed in India. They want to study that so they can teach that in dance departments in the United States.

HOUSE SPARROW PROJECT

Mrs. HANSEN. The Virginia Commonwealth University in Richmond, Virginia, is proposing "Comparative Bioenergetics of the House Sparrow." That is a lovely title.

Dr. CHALLINOR. If I may, Madam Chairman, let me say that these titles or the titles of these research projects were actually written, as you are aware, to be read by scientists. This does not imply that the laymen are ignorant.

Mrs. HANSEN. I understand, but that is exactly the problem.

Dr. CHALLINOR. I can give you A. Einstein's paper in 1905 as an example, "On the Electrodynamics of Moving Bodies." These papers

were written for colleagues to see. They would go through and say, "Here is something right up my alley," and thus one little piece of information can turn into a whole series of other papers.

Mr. YATES. For the record will you repeat the one by A. Fleming?

Dr. CHALLINOR. "On the Antibacterial Action of Cultures of a Penicillium with Special Reference to their use in the Isolation of B.—I am not sure what that stands for—Influenzac" by A. Fleming.

This question came up in the Senate hearing, too. Both Mr. Bible and Mr. Stevens received a copy of a newspaper article by a man by the name of Allen, in effect making sport or fun of picking out the oddball titles. If you want we can give titles twice as odd as the ones we have here if we set out to dig them up.

So I have looked up the titles of papers reporting great discoveries such as "The Molecular Structure of Nucleic Acids." If this is useful for you we can give you some examples of titles of papers on great discoveries.

Mrs. HANSEN. Please do.

[The information follows:]

SCIENTIFIC TITLES OF RESEARCH PROJECTS OF GREAT SIGNIFICANCE

1. "Molecular Structure of Nucleic Acids," by James D. Watson and Francis H. Crick; published in "Nature," London, April 25, 1953, pages 737-38 (This revealed the shape of genes and was basic to the study of DNA.)

2. "On Antibacterial Action of Cultures of a Penicillium, with Special Reference to their Use in the Isolation of *B. influenzae*," by Alexander Fleming; published in the "British Journal of Experimental Pathology," London, 1929, volume 10, pages 226-236. This opened the field of antibiotics.

3. "On the Electrodynamics of Moving Bodies" (Zur Elektrodynamik bewegter Körper), by Albert Einstein, published in the German Journal "Annalen der Physik," Leipzig, 1905, Bd 17, pages 891-921. This was Einstein's first paper on the Theory of Relativity.

4. "Study on Plant Hybrids" (Versuche über Pflanzen-Hybriden), by Gregor Mendel; published in "Verhandlungen des Naturforschenden Vereines," Brunn (now Brno, Czechoslovakia), 1865, pages 3-47. This began the study of plant genetics.

Dr. CHALLINOR. May I for the record then give you these, like the comparative bioenergetics of the house sparrow because the house sparrow was introduced on purpose into this country in about 1875.

Mr. RIPLEY. It was introduced to eat potato bugs and now has spread all over this country. It is probably one of the most ubiquitous birds in the world.

Dr. CHALLINOR. This study is of how much of the energy in the natural system is consumed by house sparrows and how much energy house sparrows contribute into the system by their carcasses rotting.

SEAWATER PROJECT

Mrs. HANSEN. Here is one with a great deal of relativity, Oregon State University. "The Role of the Reaction Between Seawater and the Oceanic Crust in Regulating the Chemical Composition of Seawater."

Dr. CHALLINOR. This is where we have the split in the Earth's crust, submarine volcanoes and things like that. We are learning all sorts of new things on this. I will be happy, as I say, to give you some of these titles and other things for ammunition.

Mrs. HANSEN. Mr. Yates.

Mr. YATES. It would be helpful.

CONSTRUCTION, RESTORATION, REPAIR, AND IMPROVEMENTS

Mrs. HANSEN. We will insert pages C-1 to C-14 in the record.

[Justification pages C-1 through C-14 follow:]

SMITHSONIAN INSTITUTION CURRENT BUILDING PROGRAM

<u>Project</u>	<u>Appropriated to Date</u>	<u>Fiscal Year 1975 Request</u>
Construction and Improvements, National Zoological Park	\$13,368,000	\$10,000,000 <u>1/</u>
Restoration and Renovation of Buildings	14,957,000	1,325,000 <u>2/</u>
Construction:		
Hirshhorn Museum and Sculpture Garden	15,000,000 <u>3/</u>	...
National Air and Space Museum	31,900,000	10,000,000 <u>4/</u>

1/ Construction of the Elephant House and Bird House environs, planning and initial construction phases of the general service and parking facility, construction of the education and administration building, planning of future projects, and building and facilities repairs.

2/ Mt. Hopkins Observatory, Animal Conservation Center, Arts and Industries Building, Smithsonian South Yard, and other repairs and improvements to buildings and facilities.

3/ Excludes \$200,000 for relocation of the Armed Forces Institute of Pathology and \$1,000,000 provided by Joseph H. Hirshhorn for construction.

4/ Appropriation to liquidate contract authority.

CONSTRUCTION AND IMPROVEMENTS,
NATIONAL ZOOLOGICAL PARK

1973 Appropriation.....\$ 675,000
1974 Appropriation.....\$ 3,790,000
1975 Estimate.....\$10,000,000

This account is used to fund repairs, alterations, and improvements to existing facilities including exhibits; to plan and design facilities; and to perform major renovations, restorations, and new construction implementing the Master Plan approved by the Commission of Fine Arts and the National Capital Planning Commission in FY 1973. The requested appropriation of \$10,000,000 will be used as follows: construction of the Elephant House and Bird House environs (\$2,970,000); planning and the initial construction phases of the general service and parking facility (\$2,730,000); construction of the education and administration building (\$3,000,000); planning of future projects (\$650,000); and renovation and repair of existing facilities (\$650,000).

The Need

The National Zoological Park must be rebuilt in its tracks. The need has been acknowledged by the Congress and has been reflected in its actions in the past several years in funding a complete and revised Master Plan for the Zoo which has been approved by the National Capital Planning Commission and the Commission of Fine Arts.

In 1890, the Olmsteds were commissioned to prepare a park plan for the National Zoo catering to horse and carriage drive-throughs, and leisurely strolls by a small number of visitors. Today many of those same paths and roadways must bear vastly greater volumes of visitors, while vehicles have consumed acreage invaluable for educational and animal management uses.

In 1890, and continuing through the first half of this century, the National Zoo, along with most others, designed animal structures to serve the "Menagerie" mentality of eras past. Animals were curiosities to be caged, usually in isolation because it was not understood how to let them live together. A typical zoo put an animal in a bare cell; gave feed to it; and when it died (as often happened), replenished it from the wild. Today we must respect and use the animal as an educational resource, provide for its psychological and physiological needs, protect its gene pool through selective cooperative breeding programs, and sustain it in good health for a full and useful life demonstrating to man the character and abilities of its own kind.

Such improved quality of care and interpretation requires increasing knowledge and operational use of such knowledge, greater staff and new expertise, effective and complex plant management, different and better foods, collaborative interaction of animal management, interpretation, animal health and pathology, and research on-site and in the field. And above all, it requires space in the right amounts, the right place and the right design--for animals, for people, and for all their essential interrelated support, service, and access needs.

That is what the National Zoo Master Plan is all about--skipping a century to meet today's and tomorrow's challenge in the face of constant and increasing use by a public tuned in to animal ecology and environmental needs (20 percent increase in visitors in 1973 over 1971), obsolescence and decay of old structures, imperative new animal space needs, recurrent flood damage to some service facilities, and overuse of others. We have no choice but to rebuild. The mandate is to rebuild for today and tomorrow rather than replicating yesterday's mistakes.

The Master Plan provides more spacious quarters, as well as suitable dens, nest boxes, privacy areas, and special quarters for pregnant females, mothers and young,

and animals receiving medical care and, consequently, many more windows of educational opportunities for the public.

The Master Plan consists of fourteen clusters of forty-one closely interrelated projects, largely fixed in their necessary sequence. To be realized successfully, the Plan must unfold within a definite time-frame for the well-being of the animals and for the enlightenment of and least cost to the public.

Funds have already been applied to accomplish several major features of construction including delicate hoofed stock, pandas, monkey house remodeling, lion hill construction, and for schematic planning for elephant yards, bird house area, Connecticut Avenue education building, and for the vital central service and parking facility.

FY 1975 Program

The requested \$10,000,000 appropriation will be used for the following projects:

1. Construction of Elephant House and Bird House Environs (\$2,970,000)

Funding of \$2,970,000 is required to complete construction of the new outside animal paddocks at the elephant house, and the plaza surrounding the bird house. Construction plans are presently being completed for the visitor sidewalks, service facilities, moats, pools, and yards surrounding the present elephant house, increasing the space for the animals by at least two-thirds. Viewing and educational facilities for the visitors will be greatly enhanced by means of elevated sidewalks, rest areas, special educational graphics, and wider sidewalks, and increased linear perimeter viewing to accommodate the ever-increasing numbers of visitors. Initially, the exhibition will include giraffes, Asian elephants, African elephants, Nile hippopotamuses, pygmy hippopotamuses, and the Indian rhinoceros. At a later date, the giraffes will move to another exhibit area with even larger yard space and the rhinoceroses into the area the giraffes had occupied. The animals will be separated from the public by pools, by dry moats, and, in the case of the giraffes, by a combination of moats and railings.

Plans for the five-acre plaza surrounding the bird house include complete redevelopment for exhibition and education. Pools and ponds for waterfowl and flamingos, crane yards, and flight cages will be presented in a park-like atmosphere appropriately landscaped with trees, shrubs, and grasses. A water bird exhibit will form an informal, pleasant approach to the building and the main feature in the rear will be the pond and yards for the flamingos.

Construction will start early in FY 1975 and both projects will be finished in time for the Nation's Bicentennial. With the completion of these projects, the monkey house, and lion hill (as well as the already completed bird house, flight cage, deer yards, hoofed-stock yards, and panda house), the Zoo will make a respectable showing for six million current visitors plus the many more anticipated between now and completion of the Bicentennial year.

2. Planning and Initial Construction of General Service and Parking Facilities (\$2,730,000)

An amount of \$2,730,000 is required to complete the working drawings on three interlocking phases of the general service and parking facility and initiation of site and foundation work. The \$300,000 appropriated in the present fiscal year has begun these plans. The requested funds would place the Zoo in a position to advance construction efficiently on the initial phases of this project, hoping for significant occupancy in part by FY 1977. This particular project is pivotal to the entire construction program. It organizes not only the visitor parking but centralizes all non-animal related functions of the Zoo--operation and maintenance, gardening, commissary, motor pool, supply, protective services, etc. It frees, for park land and

animal exhibition, approximately twelve acres now used for parking and roadways. And it accomplishes critically necessary Rock Creek flood control protection for the Park in a plan carefully coordinated with all necessary neighboring and planning jurisdictions. Twice in as many years, Zoo work areas have been inundated by flooding. The service facility will incorporate civil engineering safeguards in order to alleviate this serious problem.

At the present time the Zoo, through the Friends of the National Zoo, is collecting a dollar parking fee for each visitor's car. Twenty-five percent of the profit is being used for the educational program at the Zoo, and seventy-five percent is being held in escrow for use in construction of the portion of the building related to visitor parking, just as user fees will defray operating costs after construction.

3. Construction of the Education and Administration Building (\$3,000,000)

An appropriation of \$3,000,000 will be used in association with a likely \$1,500,000 from a private foundation for the completion of plans and construction of the educational building at the Connecticut Avenue entrance to the Zoo. This building will play a role in furthering humane education programs--an aim long advocated by the Zoo. This is an example of efforts to augment Federal support for the Zoo construction program by cooperative efforts with the private sector.

The building will contain educational program facilities centered around an auditorium equipped for both live and audio-visual presentations. It will be used as an introduction-orientation center for the Zoo. Several classrooms will be available to school systems. In addition, this building will house the administrative offices and library. Plans presently in the initial stages will be completed and construction started in mid-FY 1975. Construction may be completed in time for the Bicentennial.

4. Planning (\$650,000)

Initial planning for future phases will be started in FY 1975, developing them in an interlocking scheme with present work and future construction phasing. These initial planning efforts are important to later well-developed plans and cost estimates for budget presentations and to insure the "meshing" of various projects with each other. Since the Zoo will stay open to the visiting public and the Bicentennial year will arrive during the construction, it must proceed with the first phases of plans in FY 1974 to insure that work is completed in an orderly, logical fashion with the minimum inconvenience to visitors.

The planning funds will be used for the following projects:

--\$70,000 for the first phase of planning for the polar bears and the center of the Zoo to include the present small mammal building, the crocodile and Komodo dragon exhibit, new small primate building, and the monkey island.

--\$30,000 for the first phase of planning and cost estimate of exhibits for the sea lions and seals--both above and underwater viewing--the beaver, the otter, and other related animals in the valley now most prominently identified by the present sea lion pool.

--\$100,000 for the first phase of planning for the giraffe complex, redevelopment for animal use of the lower parking lots, rehabilitation of the duck ponds, and the lesser cat exhibit. This area, which extends from the lower one-third of Olmsted Walk eastward to Rock Creek, is now occupied by the Police Station, restaurant, duck ponds, and parking lots. The giraffes will be the central feature here, with a large outdoor yard where they will have ample room to move about and display their marvelous mobility. One pool will be added among the duck ponds which will contain a gibbon island. This

area will also include exhibition pens for the medium-size and smaller cats and a small flat space, now used for a parking lot, will be devoted to hoofed-stock, principally antelope.

--\$400,000 for the completion of phase II planning documents for the lower Rock Creek area to include the bears, goats, sheep, and baboon exhibit in the old rock quarry and the great ape exhibit at the lower end of the Zoo property in Rock Creek. Phase I tentative plans are being worked on now.

With the completion of these plans, the main exhibits in the central and lower parts of the Zoo will be sufficiently developed for more integrated construction phasing and more accurate cost estimation.

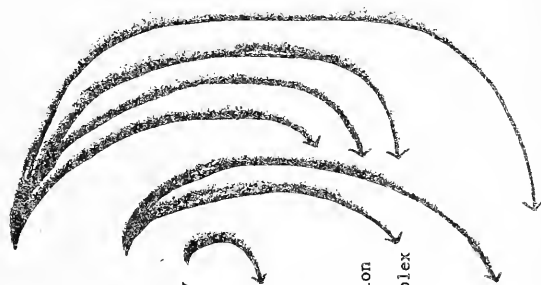
5. Renovation and Repair (\$650,000)

An amount of \$650,000 is needed for the continuing renovation and repair of the heavily used facilities of the present Zoo, taking into consideration the phased development of the whole Zoo. This includes such things as necessary repairs to roofs, utilities, walks, guardrails, fencing, access traffic flow, and the minimal repair and maintenance of heavily visited exhibits until they are replaced in the Master Plan.

NATIONAL ZOOLOGICAL PARK MASTER PLAN SCHEDULE

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Fourteen Complexes ¹ (Forty-one projects)	Necessary Completion Sequence	Target Dates ² (Bicentennial: *)	Future Estimated ³ Funding Needs	
			(\$,000's)	
I Monkey House, Puma House, Panda House		* Completion '75	Funded	
II Lion and Tiger Hill		* Completion '76	Funded	
III Elephant Yards and Bird House Plaza		* Completion '76	Planning funded Construction '75	2,970
IV General Services and Parking Facility		Planning- site work '75 1st occupancy '77 Completion '78	Schematics funded Planning '75 Budget authority '76 Budget authority '77 Budget authority '78	2,730 7,200 4,970 4,700
V Education and Visitor Center		* Completion '76	Construction '75 (1,500 donation)	3,000
VI Lower Rock Creek Valley		Completion '79	Schematics funded	10,670
VII Beaver Valley		Completion '79	Schematics '75	10,430
VIII Polar Bear Complex		Completion '80	Schematics '75	11,910
IX Giraffe Complex		Completion '80	Schematics '75	10,000
X Reptile House and Elephant House Renovation		Completion '80		2,500
XI Connecticut Avenue Complex		Completion '81	(2,500 est. private participation)	6,100
XII Manatee Complex		Completion '81		6,000
XIII Holt House Area		Completion '82		2,000
XIV North Road Development		Completion '83		14,000
				\$99,180



²Target dates: Completion dates achieved by use of construction management staging of design and construction.

³Dollars escalated to estimated 1975 value.

NOTES

¹ Project Composition	
I	<p>Monkey House (1), Puma House (2), Panda House (3) (14 species of monkeys, small and medium cats, giant pandas and assorted species)</p> <p>Lion and Tiger Hill (4) (Pride of lions, yellow and white tigers)</p> <p>Elephant Yards (5) and Bird House Plaza (6) (African and Indian elephants, Indian rhinos, pygmy and Nile hippos; crane yards, flamingos, 15 rearing yards, waterfowl ponds, pens)</p> <p>General Services Facility (7) (1500 visitor cars; total central support services: visitor health, safety, police center, commissary, buildings service shops, motor pool, central lockers, exhibits production, central supply, trackless trains service)</p> <p>Education and Visitor Center (8) (Education and visitor services, school group staging area, administration and conservation offices, volunteer and guide services; Humane Society)</p> <p>Lower Rock Creek Valley (Bears (9), sheep and goats (10), baboon quarry (11), primate house (12), maned wolf (13), trackless train junction to METRO (14))</p>
VII	<p>Beaver Valley (Beavers (15), wolves (16), seals and sea lions (17), North American otters (18), penguins (19))</p>
VIII	<p>Polar Bear Complex (Polar bears (20), Small Mammals House renovation (21), crocodiles and komodo dragon (22), new monkey house (23), monkey island (24))</p>
IX	<p>Giraffe Complex (Giraffe house and yards (25), main waterfowl pond renovation (26), lesser cats (27), plains animals (28))</p>
X	<p>Reptile House (29) and Elephant House (30) Renovation</p>
XI	<p>Connecticut Avenue Complex (Restaurant and cafeteria, gift shop (31), main entrance gate and plaza, North American animals (32), parking extension)</p>
XII	<p>Manatee Complex (Manatee river bank scene (33), kiwi (34), sea otters (35), platypus (36), hawks and owls (37))</p>
XIII	<p>Holt House Area (Holt House renovation, greenhouse development (38), research and health holding areas, animal nursery (39))</p>
XIV	<p>North Road Development (North road parking, Kingle Bridge (40), large plains animals (41))</p>



RESTORATION AND RENOVATION OF BUILDINGS

1973 Appropriation.....\$5,014,000
 1974 Appropriation.....\$1,070,000
 1975 Estimate.....\$1,325,000

This account is used to fund major repairs, alterations, and improvements of a long-term nature and utility. From time to time, it is used also for construction of minor new temporary and permanent buildings or other facilities. Projects undertaken are in support of research, care and protection of collections, public safety and accommodation, and maintenance of a valuable physical plant and natural areas.

With funds available, the Institution is carrying out several significant projects, including the air conditioning and renovation of the Arts and Industries Building for special Bicentennial use. Continuation funding for certain of these and funding for new projects is sought in the FY 1975 appropriation.

An appropriation of \$1,325,000 is required for the following projects:

1. Mt. Hopkins, Arizona, Observatory power, road, and water improvements	\$200,000
2. National Zoological Park Animal Conservation Center	125,000
3. History and Technology Building and Natural History Building fire control systems	150,000
4. Tropical Research Institute laboratory improvements	75,000
5. Fine Arts and Portrait Galleries storage space and temperature control	35,000
6. Arts and Industries Building renovation	300,000
7. South Yard visitor improvements	300,000
8. Library space improvements	50,000
9. General building and facility repairs and improvements	90,000
Total	\$1,325,000

Mt. Hopkins, Arizona, Observatory Power, Road, and Water System Improvements

An appropriation of \$200,000 is requested to continue the program of power and road improvements and to initiate work on an adequate water system.

Using funds appropriated in FY 1973 and 1974 (a total of \$420,000) the Smithsonian Astrophysical Observatory has undertaken a major phased renovation of the inadequate power system at its Mt. Hopkins, Arizona, Observatory, so that it will serve the rapidly increasing observational potential of the installation, including the needs of the multiple mirror telescope now being fabricated. Plans have been approved by the U. S. Forest Service and work is underway.

The U. S. Army Corps of Engineers is installing an improved electrical power distribution system to the ridge and summit areas of the Mt. Hopkins Observatory. FY 1975 plans are to extend the system into the summit bowl area. In addition, negotiations are proceeding with Citizens Utilities Co. for the construction of a commercial power line from the Amado area in the valley to the ridge area distribution point. Construction of the power line is expected to commence in FY 1974 and will be completed in FY 1975. Construction of a substation at the ridge area distribution point for the commercial power and switchgear for standby generators is planned for FY 1975. The amount of \$100,000 is required in FY 1975 to complete these projects.

U. S. Forest Service approval also has been given to the plans and specifications for improvements to the site access road which extends from the valley to the 7,600 foot ridge area. Improvements to the ridge road and construction of the summit access road will be completed during FY 1974. Plans for FY 1975 include paving of these sections of the road. Repairs and improvements to the more dangerous sections of the Mt. Hopkins access road are being made during FY 1974 and will be continued in FY 1975 and following years. An amount of \$86,000 is requested for this purpose in FY 1975. Through FY 1974 an amount of \$185,000 has been appropriated for this safety and operational need.

Engineering source survey and design of a water supply system from nearby Mt. Wrightson is planned for FY 1975. This system will eliminate the problem of trucking water from the valley up the road to Mt. Hopkins, with attendant high labor cost and road damage from heavy trucking. Plans call for the installation of holding tanks at the summit and the ridge in FY 1975. The amount of \$14,000 is needed for this project in FY 1975. Installation of the water pipe system in FY 1976 is estimated at \$75,000.

National Zoological Park Animal Conservation Center

An appropriation of \$125,000 is sought to make repairs and modifications to the National Zoological Park's Animal Conservation Center.

A 4,100-acre site, the former Beef Cattle Experiment Station at Front Royal, Virginia, was declared excess by the U. S. Department of Agriculture in November 1973. The Smithsonian Institution request for a temporary use permit was granted by the General Services Administration in January 1974, and transfer of the property to the Smithsonian is pending.

The site will be used by the National Zoological Park for breeding endangered wildlife species and for associated research efforts. Space is the most critical resource needed to permit success in assuring survival of precious life forms as their numbers and home habitats disappear. Nucleus breeding groups are being assembled in cooperation with other zoos. A secondary use will be to hold animals displaced temporarily by Master Plan construction at the Zoo, as well as animals obtained in anticipation of construction completions. An additional very practical use is a source for selenium-rich hay needed for animal health.

Because of its past use as an animal facility, almost all of the utilities and structures required by the Zoo are in place. Accommodation of wild animals will require erection of a secure perimeter fence, in several annual increments, modification of existing barns and stables, and normal major repairs, such as replacement of sections of old water and sewer lines. The approximate spending plan for FY 1975 includes building modifications, including caging (\$20,000); major repairs, chiefly water and sewer lines (\$10,000); and fencing and animal containment (\$95,000) for a total of \$125,000.

History and Technology Building and Natural History Building Fire Control Systems

An appropriation of \$150,000 is requested to continue the phased program of installing fire control systems cited in the FY 1974 budget.

The disastrous fire which occurred in the History and Technology Building in September 1970 proved conclusively that fire control systems are a vital element in the protection of the national collections as well as a prime public safety requirement.

A program of incremental installation has been developed to coincide with other work such as repair and construction, the modification or installation of exhibitions, or other space changes. This will reduce installation costs of the fire control systems as well as assure that this work does not interfere unduly with ongoing activities.

The first increment of funds provided in FY 1974 (\$75,000) will provide the basic fire protection data and the installation of systems to meet the highest priority needs of the History and Technology and Natural History Buildings based upon an engineering evaluation. Further installations will be made with the requested \$150,000.

Tropical Research Institute Laboratory Improvements

An appropriation of \$75,000 is sought to develop improved laboratory space at the Smithsonian Tropical Research Institute (STRI).

STRI is engaged in basic biological research, primarily in Panama, concerning especially questions of ecology and evolution in the tropics. Present facilities are inadequate. The Tivoli Hotel site (in the Canal Zone but adjacent to the Republic of Panama), recently vacated and made available to STRI, has several important advantages as the headquarters site to include offices for administrative staff and laboratories for staff and visiting researchers. The site has an existing structure, previously used as a kitchen building, suitable for renovation. It is close to the present overcrowded Ancon Building and is convenient for Panamanian students.

With funds available, work has begun at the site to make preliminary repairs to the exterior masonry and roof and to install initial electrical and plumbing facilities in portions of the building.

The FY 1975 budget amount of \$75,000 will be used to continue the renovation of the kitchen building, including the installation of air conditioning and laboratory cabinets.

Fine Arts and Portrait Galleries Storage Space and Temperature Control

Funding of \$35,000 will permit development of storage space and the installation of temperature control systems in an employee area of the Fine Arts and Portrait Galleries Building.

The National Collection of Fine Arts and the National Portrait Gallery are in need of additional storage space for shipping crates. At present, much needed public and work areas are being used for this purpose. The development of storage space in an existing vault under the courtyard, to include waterproofing, painting, lighting, and door installation, would solve an immediate problem and free currently used space to be utilized for its intended purposes.

It is also important to provide heating and air conditioning to approximately 12 rooms now housing employees located in a basement area. This area is used for locker rooms, shops, and other purposes. Currently fans and electric heaters are being used to provide some relief from uncomfortable temperatures.

Arts and Industries Building Renovation

The FY 1973 appropriation provided \$3,355,000 for the major portion of the restoration and improvement of the Arts and Industries Building and for recreating the 1876 appearance of the rotunda and four main exhibition halls. The major improvements include the opening of the west entrance to the building, replacing obsolete and inadequate electrical and utilities systems, installing heating, ventilation and air conditioning systems, the installation of public and staff rest rooms, and related demolition and restoration incidental to the accomplishment of the project objectives.

The contract work for this portion of the project is expected to start in January 1974 with the expectation that exhibits installation can begin in 1975 for a major presentation, titled Centennial - 1876 which has been included in the President's Bicentennial Program. The funding for this special exhibition is included in the Institution's Bicentennial budget request.

An additional appropriation of \$300,000 is requested to accomplish some additional improvements which are important to the functioning of the building and to protect the structure and interior finishes from weather damage. This additional work includes: replacement and repair of badly deteriorated window frames and sashes in the rotunda and the four major halls, essential in protecting the new exhibits to be installed in those areas; installation of an elevator to improve movement of visitors and especially the handicapped to the second floor of the building; the improvement of the building's east grounds to esthetic comparability with adjacent park areas; and the installation of insulation and new roofing on critical parts of the building.

South Yard Improvements

Funding of \$300,000 will permit initial improvements for public use of the "South Yard," the area bounded by the original Smithsonian Building, the Arts and Industries Building, the Freer Gallery of Art, and Independence Avenue.

The long-range development of the "South Yard" will require more intensive study and planning development for future accomplishment. The \$300,000 requested is for the first phase of this long-range project and will include the removal of some existing roadways and parking areas, the demolition of the temporary structures in this area following the relocation of the present activities to other quarters, removal of bases supporting the missiles presently on exhibit, certain landscape improvements, and revised surface treatments to achieve the initial development of a Victorian garden. The major portion of this work is planned to remain in place and will be extended as future development of the "South Yard" concept progresses.

The accomplishment of this initial phase will substantially upgrade the appearance and use of this valuable area and will create an inviting, restful area for Bicentennial visitors.

Library Space Improvements

An appropriation of \$50,000 is needed for library space improvements. In FY 1971 the Smithsonian Institution Libraries began a long-range program of improving the physical conditions of existing areas and of increasing available space by installing decking in all areas where feasible. In FY 1971, \$50,000 was appropriated to deck three adjoining rooms in the Natural History Building (on the north side of the library) and thus create necessary additional operating space. This project was completed in September 1972. In FY 1973, \$60,000 was appropriated to begin a second phase of this program which entailed completing the decking and remodeling of the reading room and central stack areas on the south side of the library corridor. These funds were reprogrammed in FY 1973 to accommodate more urgent priorities. Plans for the completion of the north side of the corridor, as allowed by the reprogramming, are in the final stages.

The third phase of this program will involve extending the present decking (which dates from much earlier construction) on the south side of the corridor and expanding the central stack area, remodeling the reading room, and providing adequate work space for the reference and circulation staff. The central library reading room, reference area, and adjoining stack areas were created in 1963. The user population of the Museum of Natural History building has increased as has the use of this facility by visiting researchers and students in the last ten years. An appropriation of \$50,000 is requested to begin this third phase. These funds will be used to remodel the reading room, including the building of necessary partitions, designing and constructing periodical display shelving, and carpeting and refurbishing the area to accommodate the increased user population.

General Building and Facility Repairs and Improvements

An appropriation of \$90,000 is requested to enable the Institution to respond to repair and improvement needs in its buildings and facilities.

Not including the National Zoological Park (which has its own general repair and renovation fund for its many buildings and acreage), the Smithsonian has eight major museum buildings (ranging in age from new to 125 years old) with a replacement value of several hundred million dollars, many lesser structures used for research and collections management purposes, and several thousand acres of natural preserve land devoted to research and education. Heavy public use of these facilities, general deterioration because of age and weathering, safety requirements, and the occasional need to make improvements or additions to keep pace with program requirements create the need for regular, annual attention. Anticipated needs are budgeted in this account under specific project headings. There is a strong need, however, for funds that will permit planning, engineering, repair, and improvement response to projects arising during the year that cannot be handled within the regular operating budget for buildings maintenance. The requested \$90,000 will be used for these purposes.

CONSTRUCTION

(Liquidation of Contract Authority)

1973 Appropriation.....	\$13,000,000
1974 Appropriation.....	\$17,000,000
1975 Estimate.....	\$10,000,000

Construction of the National Air and Space Museum is well underway. The new museum being built on the site between Fourth Street and Seventh Street, Independence Avenue and Jefferson Drive, as authorized by Public Law 89-509, was 25 percent complete by mid-December 1973. The foundations, most structural steel, and some of the marble facing are already in place. The project is on schedule--estimated to be substantially completed by June 1975, within the authorized funding. At that time, exhibits will be installed for a scheduled public opening on July 4, 1976.

The construction manager system being used (under the supervision of the General Services Administration) is performing very well. The entire project has been divided into 27 construction contract packages. These are: watermain relocation; excavation; marble; structural steel; metal decks; foundations; curtain walls; skylights; roofing and sheetmetal; masonry; mechanical; electrical; elevators and escalators; concrete slabs; painting; fireproofing, insulation, partitions, and acoustics; kitchen and cafeteria equipment; miscellaneous metal; carpentry; spacearium dome; landscaping; auditorium screen; auditorium platform and podium; security gates; special equipment; art storage; and graphics. The first 20 of these contracts have been awarded. Through the spacearium dome contract, \$29,074,914 had been obligated and \$10,038,414 expended through November 1, 1973.

The liquidation of the final \$10,000,000 of contract authority is requested in FY 1975 in order to assure the timely completion of the building for its public opening.

Mrs. HANSEN. Please insert in the record your unobligated balances as of June 30, 1973, and as of January 31, 1974. This tabulation should list each individual project for which there is a balance and should indicate the year in which the funds were appropriated.

Mr. BROOKS. We will do so.

[The information follows:]

CONSTRUCTION, RESTORATION, REPAIR, AND IMPROVEMENTS OF BUILDINGS CURRENT PROJECTS

Projects	Year funds appropriated	Unobligated balances (including funds at GSA)	
		June 30, 1973	Jan. 31, 1974
Construction, National Museum of History and Technology.....	1956, 1957.....	\$25, 058	¹ \$54, 168
Additions to Natural History Building.....	1958, 1961, 1962.....	12, 049	12, 049
Remodeling Civil Service Commission Building (Fine Arts and Portrait Galleries Building).....	1962, 1964, 1965.....	5, 963	5, 963
Planning and construction, Hirshhorn Museum and Sculpture Garden.....	1968-1972.....	528, 899	92, 520
Planning and construction, National Air and Space Museum.....	1972-1974.....	19, 306, 401	² 13, 065, 908
Construction and improvements, National Zoological Park.....	1963-1974.....	1, 202, 202	³ 4, 254, 059
Restoration and renovation of buildings.....	1966-1974.....	5, 203, 768	⁴ 5, 567, 370

¹ Reflects recovery of prior obligations. Obligations of \$45,000 now being processed.

² Anticipate balance of about \$930,000 on June 30, 1974, per General Services Administration's estimate.

³ Obligations for lion and tiger exhibit and planning will reduce balance to about \$200,000 by June 30, 1974.

⁴ Obligations in February and March 1974 for Arts and Industries Building, National Portrait Gallery 3d floor renovation, and storage building at Silver Hill, Md., facility totaled about \$3,100,000. Other projects under design and review.

CONSTRUCTION AND IMPROVEMENTS NATIONAL ZOOLOGICAL PARK

Mrs. HANSEN. Now with regard to the National Zoological Park, \$2,970,000 is requested for the construction of the elephant house and bird house environs.

When will construction of this facility be completed? Have you completed all the planning?

Dr. REED. The planning which has been funded this fiscal year, Madam Chairman, is right on schedule for completion by summer. I have the plans with me through the preliminary stages. We have gotten our first estimate on cost of construction. We are within the requested amount of money. We anticipate, with luck, we will start construction in the first quarter of fiscal 1975, or as soon as money for this construction is appropriated. Construction will be completed, with luck, by Easter 1976.

We hope to have these two items completed with the lion house, along with the remodeling of the monkey house, prior to the Bicentennial celebration.

FUTURE IMPROVEMENT PROJECTS

Mrs. HANSEN. What remains to be done at the zoo after you have the lion house out of the way, after you have your bird house environs out of the way, after you have a new monkey house?

Dr. REED. We are remodeling the old monkey house, yes.

Mrs. HANSEN. You have the pandas taken care of and now you will have the elephant house and the environs of the bird house. What remains before you get your zoo into a credible position?

Dr. REED. Within the master plan which has been approved by the Fine Arts Commission and the Planning Commission, what we are

aiming for is a total of 41 projects, and when we complete these projects that we have noted here now we still have about 35 more to go within the 41 total. For example, there is a remodeling of the reptile house which is a major exhibit. Eventually the interior of the elephant house should be remodeled. This year we are working on the exterior. We should remodel and modernize the small mammal house, which, of course, is a nice 1930 menagerie but is a monstrosity according to modern concepts and standards of exhibition.

We need to redo the bear pits. Our sheep and goats have no good place now and need new quarters.

Mrs. HANSEN. Put them out to keep your lawn short.

Dr. REED. They will keep the lawn short in areas where they will be exhibited. We want to keep them on the steep side of a hill. Mountain sheep have to be kept in a proper environment.

We need a new sea lion-seal-beaver-otter aquatic mammal exhibit. We have no penguin exhibit. We will put in one of those. We hope to have a number of outside cages.

Mrs. HANSEN. Have you no pity on those things living in Washington, D.C. in the summer?

Dr. REED. The penguins will live in very nice quarters. They will be air-conditioned and have chilled salt water. They will have a wonderful time. If you don't give them the right quarters they will not survive.

Mrs. HANSEN. This is what I am concerned about.

Dr. REED. We think we know how to keep them healthy. The National Zoological Park was the first zoo in the world to have air-conditioned refrigerated cages for penguins. We established many years ago the method of keeping penguins.

Fortunately, the other zoos took our idea and they made nice penguin exhibits. The best one in this country is in Detroit, Mich. They went further than we did. When we remodeled the bird house in 1963 we had to destroy the old exhibit. Eventually we want to build a modern exhibit for the penguins.

In summary, there are many exhibits which we feel we should rebuild for public education and pleasure and for scientific research and survival of animals.

TOTAL COST OF ZOO RENOVATION

Mrs. HANSEN. What will be the total cost of the zoo when it is all done, figuring in escalation of costs? I hope GSA does not go into the rental space business out there.

Dr. REED. I will try to keep GSA out of the zoo rental business. We will manage our own program.

Mrs. HANSEN. I agree with you.

Dr. REED. The total cost of the projects which we envision over the next 10 to 12 years, or however long the total program takes, will be somewhere close to \$99 million considering escalation to the 1975 value of dollars. This is one thing we are trying to do, that is to consider and update the escalation factor in the estimations we present each year, using the figure of 1 percent a month which is what it has been for the past few years. I hope we will not have to change it to a higher percentage.

Mrs. HANSEN. That is why I wanted the total price. We are sometimes criticized that there is not a huge amount all at once. As I understand it, you have tried to do it on a priority basis.

Dr. REED. That is right.

PROJECT PRIORITIES

Mrs. HANSEN. You have selected your program on the basis of priorities. Now if we don't construct too many more buildings on the Mall, we can get with it a little faster.

Dr. REED. As Dr. Ripley had requested that I do, we are taking care of remodeling buildings and exhibits that we have in place. At the same time we are trying to keep ourselves clear in the center of the zoo for the Bicentennial. I would like to redo the reptile house now but I cannot do that until after the Bicentennial. I cannot have a lot of construction going on in the center of the zoo during the Bicentennial. On the periphery of the zoo we will be working. That is where no one goes. We must accommodate the visitors, too. The zoo and its animals are for people.

IMPORTANCE OF THE SERVICE AND PARKING FACILITY

Mr. RIPLEY. Development of the new area for parking will, in turn, free 12 or more acres of present parking blacktop and turn it back into parkland. This building on the side of the hill will also provide flood control aspects and much improved centralized zoo servicing facilities. We think this will be a tremendous asset.

Mrs. HANSEN. I note that you are requesting \$2,730,000 for planning and initial construction of general service and parking facilities. Why do you consider this project pivotal to your entire construction program?

Dr. REED. This particular project has about 15 functions of the zoo within it, that is, for the mechanics, the gardeners, laborers, police, locker rooms, all of the production shops, services, commissary, and so on. They will all be in this facility as well as parking for visitors' cars. It is a combination unit and its availability will allow us to move in other areas, such as in the reptile house which now contains in its basement the commissary which is outmoded and very old-fashioned and really not very efficient. We will build a new commissary in the service complex. We then can move into the Reptile House and remodel and renovate the Reptile House. So it goes throughout the zoo. There are 10 of the major projects of the zoo which are dependent upon the service area, to clean them out so we can make them animal exhibits.

Let me give you one specific example.

In the basement of the Reptile House where the commissary is now, I hope to start with a hanging drop of water and go to the very beginning of life and then move up into life in the sea world. We would also have a small insect exhibit there and a really fine educational exhibit of other small things as well.

I feel very badly that we have not yet given attention to insects in the animal world. Elephants are important, but insects are important, also. They are animals as well as you and I.

Mrs. HANSEN. You have quite a collection of cockroaches.

Dr. REED. We would like to have more interesting insects than cockroaches. They are not very interesting but they can survive. They have a high survival rate.

Mrs. HANSEN. Their survival is amazing. What portion of the funds requested for the Service and Parking Facility are for planning and what portion are for construction?

Dr. REED. For the completed planning, working drawings, and bid specifications for this facility we have about \$1,000,000. The rest of the budget request is for initial construction?

Mrs. HANSEN. If your planning has not been completed what is the necessity for construction funds now? When do you expect construction to begin?

Dr. REED. We would expect construction to begin the second quarter of the next fiscal year. This will be the first phase of the access roadway.

The general service and parking facility includes the road and the approaches to it. We will do that portion first, from the Connecticut Street entrance, about half way down the hill, we will have on surface parking lots, changing the road and getting ready for the main structure. We will be able to do that.

By starting now and having the money ready to go so we can do this first phase, we think we can get this completed, get this initial phase of parking by 1976.

To accomplish this we will follow the good leadership of the Air and Space Museum and use a construction management type of construction program. We have assembled, we think, a fine team and organization at the zoo and we will be able to use an appropriate form of construction management.

ZOO PARKING RECEIPTS AND PUBLIC TRANSPORTATION

Mrs. HANSEN. How much money has been collected from the zoo parking which can be applied to this project?

Dr. REED. We have as of the end of February \$102,000 being held in escrow by the Smithsonian Institution from the parking fees.

Mrs. HANSEN. Will you have Metro access to the zoo by 1976?

Dr. REED. It is my understanding, and it is certainly an imperfect understanding, that 1978 will be the time they will open up their entrance at Calvert and Connecticut Streets, 2,000 feet away from the entrance to the zoo.

Mrs. HANSEN. Can you have special buses to the zoo? You can channel more people, as you know, into public transportation.

Are you doing any work with the Metro bus people in regard to public transportation so that people will know how to get to the zoo by bus?

Dr. REED. We have been trying to encourage them to put these signs on the buses that run to Connecticut Avenue "Take this bus to the Zoo." You may have seen these signs on the sides of certain buses.

Mrs. HANSEN. I have not. That is why I asked the question.

Dr. REED. We have also been in communication with the Park Service about the possibility of extending the tourmobile to the zoo because they are more or less hopeful people will leave their cars at the

zoo and take the tourmobile to the Mall facilities, although some of our neighbors do not want that and are not too happy with the prospect of more cars. They don't want us to become a parking area. We are exploring possibilities with the Park Service.

Mrs. HANSEN. You have 2 years left. It takes about 2 years to do anything in this city.

Dr. REED. At least.

EDUCATION AND ADMINISTRATION BUILDING

Mrs. HANSEN. You are requesting \$3 million for the construction of the Education and Administration Building. Give us details on this.

Dr. REED. At the Connecticut entrance to the zoo we plan to have an education building. This will contain an auditorium for about 300 to 350 children or adults, several classrooms, and the administrative offices of the zoo. In this building we can conduct our orientation courses for organized school groups that come to the zoo. We can have classrooms for teachers to use, or the zoo can establish educational programs in biology and zoology to supplement those in grade school, high school, and even at the college level.

We hope to receive a legacy of about one and a half million dollars which will help us build this building.

Mrs. HANSEN. I hope you invite the airlines to send their animal shipping clerks in for a course.

Dr. REED. This would be a very fine thing. I think that the CAB is starting an inquiry into this. I have been invited to participate.

Mrs. HANSEN. They are years late.

Dr. REED. I can match you stories on problems with shipping animals.

Mrs. HANSEN. The only reason they are doing anything is because the women in the Humane Society are watching and pouncing on them. Otherwise they would not do anything.

Dr. REED. That is right. It takes citizen activation. That is the only thing that is pushing them. I am aware of that.

PLANNING FUNDS FOR FUTURE PROJECTS

Mrs. HANSEN. You are requesting \$650,000 for planning. Give us the justification for this.

Dr. REED. The construction planning time will be followed pretty well on page C-6 as to when we plan to do this work.

By developing the plans on these projects we will be able to get a fix on the amount of money that the project will cost. Then we will be able to come to you with plans and more definitive preliminary cost estimates, so when I come in here and ask you for money I will have plans as backup.

Funds are requested for the planning of the polar bears and the area in the center of the zoo which will include plans for remodeling the small mammal building, a crocodile and Komodo dragon and lizard exhibit, the new monkey building which will occupy the space where the bears are now. We are starting plans this year for fine new quarters for the bears, so when the bears move we will be ready to

use their present space in order to place the small primates and a monkey island.

Mrs. HANSEN. I hope you will let the Los Angeles Times know about that.

Dr. REED. It is sometimes difficult to follow this. I wonder whether the Los Angeles Times can follow the intricacies of the chess game we play with the animals in the zoo, trying to keep it open for the enjoyment of some 5 million people a year while all this construction is going on.

We will develop the first phase of planning and cost estimates of exhibits for the sea lions and seals. We plan to have an underwater exhibit of these animals. Seeing the animals from the top, watching them swim around in the water, is half of it. Seeing what they do under the water, the grace, the speed, and agility that these animals have, and also the sounds and noises they make, the talking they do under water—this is extremely fascinating and part of the animal that should be exhibited and explained to the people.

Of course, we have the beaver which I am particularly anxious to exhibit because of its role in the historical development of our country. Again I wish to have above water, under water, and in-the-den exhibits. All this in the valley where the sea lions are at the present time.

Mrs. HANSEN. You have given us completion. You had better give us for the record the dates on which you expect to request construction funds—whether it is 1976, 1977, 1978, and so on.

Dr. REED. I can do that.

[The information follows:]

Construction startup funding to be sought for fiscal year 1975 planning projects

General clusters of projects:	Year
Lower Rock Creek Valley (bears and foxes, sheep and goats, baboon quarry, primate house, trackless train junction to metro station)---	1976
Beaver Valley complex (beavers, wolves, seals, and sea lions, otters, penguins) -----	1977
Polar bear complex (polar bears, small mammals house renovation, crocodiles and komodo dragon, monkey house, monkey island)----	1977
Plains complex (giraffe house and yards, main waterfowl pond renovation, lesser cats, plains animals)-----	1978

EFFECTS OF ZOOS ON ANIMALS

Mr. YATES. Did you happen to see the television show the other night on zoos and the effect that most zoos have on animals? They showed a picture of an elephant rocking back and forth in an iron cage. The assertion was made that the public really does not get any view of animals as they are in their normal habitats because a change takes place when they are caged in zoos.

The thrust of the television show was that there ought to be some way of constructing a zoo to show the animal in a natural habitat, so that the animals do not have to see psychiatrists, they will not have lost their spirit, they will not have developed any neuroses. Will you have that kind of a zoo when Mrs. Hansen calls you and asks you whether you have completed all these things?

Mr. RIPLEY. I can speak to that because I did see the program. I was very much interested in that program because I felt it was a very biased program. Like many programs you see for a few moments of time, such as reading a short article in a magazine or short newspaper article, it did not give the whole picture.

It spoke of the inhuman, un-animal treatment of these animals. It contrasted the narrow cage in the Central Park Zoo where the tiger wandered back and forth, which is an outmoded and old-fashioned cage, of course. You saw the elephant in the Portland, Oreg., zoo where you saw the elephant rocking at the end of his tether in a large enclosure.

Hediger, who is the head of the zoo in Zurich, has written telling books on animal behavior, showing that certain kinds of animals do quite well in zoos. They like rather small tidy quarters. They are very much like people, happy in a small apartment, in contrast to somebody who would not be happy and wants to live in the out of doors, things of this sort. There are all sorts of conditions of animals themselves being happier in certain kinds of places than in others.

If you keep wolves, for example, and do not have a large area of space for them to run about, they become psychotic. They cannot live in narrow confinement because their home range is 100 square miles, let us say, in the north.

If you keep other animals which have a home range of a few square yards they are as happy in a zoo, provided they are well taken care of, as they would be at home.

I felt the program was a little unfair. Interpretive treatment of animals can be done properly by a good zoo with the proper financial support and the proper people. There is no question about it. Then they have to make the judgment about what animals they want to keep.

Mr. YATES. Ordinarily a city zoo does not have the space, does it?

Mr. RIPLEY. It has space for some.

Mr. YATES. For some, yes.

Mr. RIPLEY. If they use judgment and discretion they can have a small model zoo which would be very fine and beautifully run. They usually do not have the funds because they are usually under a municipal administration, as this zoo used to be under the District, where you are in direct competition with hospitals and schools and things which are of far more concern to the citizen. They therefore tend to be neglected and rundown. Those who administer the zoos tend to get neglected and rundown as a result, and the whole thing ends up being a shambles.

These sorts of zoos, unless they are modified and corrected, should go out of existence.

Mr. YATES. The Smithsonian Zoo will not be like that?

Mr. RIPLEY. The Smithsonian Zoo, as long as we continue the rebuilding and reconstruction program which was started in the early 1960's, and which was temporarily suspended during the height of the Vietnam war, will not be that way.

Dr. REED. Certainly it will not. We have reduced the number of animals. We have to give animals more space. This map shows the plan for the overall improvement of the zoo.

Mr. YATES. This is what we have here in the budget justification?

Dr. REED. Yes, but in a larger form. This entire area is the area where the deer are. This area has been remodeled. The deer and the antelope are up in this area.

We have reduced the number of cages by 25 percent. There are 25 percent less cages but we have 5 acres more. We have more space and we have the animals acting much better. They are happier and running around having a very nice time.

Of course, when we get the facility near Front Royal developed we will have for deer and other animals that need more space hundreds of acres.

Combined with the physical renovation the work we are doing in the National Zoological Park in the behavioral studies of these animals is important. It is not enough to take an animal from the wild and say "Here is your cage and the type of food you will get." Our scientists study these animals and tell us a great number of things about how the animals live in the wild and how they can better be exhibited.

For instance, for the little golden marmoset, we found that the small cages, which many zoos have had them in for years, are inadequate. They need about 20 feet by 15 feet high by at least 12 feet wide.

In larger space, the animal can choose whether to come to you or whether to retreat. When he is in a small 3 by 4 by 6 cage he is always terrified. Give him enough space so that he can retreat and therefore he does not retreat. The scientific work on animals goes hand-in-hand with the modern exhibitions.

ZOO REPAIRS

Mrs. HANSEN. A total \$650,000 is shown for renovation and repair. Please comment on this need.

Dr. REED. These funds will be used for the necessary repairs for the continuation of the operation of the zoo, such as roofs, fencing, guard rails, traffic flow, and maintenance of the heavily visited areas. There is a lot of sidewalk and roadwork to be done to maintain the zoo. This will all be done with a view in mind of permanent improvements under the master plan.

Mrs. HANSEN. So it is not something you will have to redo?

Dr. REED. It may be. There are instances where for example, in 8 years I will tear out one sidewalk. We will have had some 40 million people depreciating it before redoing it for the master plan. I have to keep the zoo in operation during this time. We will try, however, for each repair investment to be a part of the permanent renovation of the zoo.

RESTORATION AND RENOVATION OF BUILDINGS

Mrs. HANSEN. For Restoration and Renovation of Buildings you have \$1,325,000 requested. You show the Mount Hopkins, Ariz., road and other projects for \$200,000. Is this planning or construction?

Mr. BROOKS. This is the continuation of construction of a series of projects for which \$605,000 has been provided by the Congress in prior years.

Mrs. HANSEN. Is it finished?

Mr. BROOKS. Not completely.

Mrs. HANSEN. How much remains?

Mr. BROOKS. Road construction will continue. Power construction will be completed in 1975.

Mrs. HANSEN. Is this only a portion of the road which is to be reconstructed?

Mr. BROOKS. Essentially that is it. We have built the road. The road is there.

Mrs. HANSEN. It is not in top-flight shape?

Mr. BROOKS. It needs to be improved and graded. This year we hope to start paving it, which will be a great benefit, I assure you.

Mrs. HANSEN. The next item is the National Zoological Park, National Conservation Center, \$125,000.

Mr. BROOKS. This is the center which Dr. Reed talked about at Front Royal, Va., This is the first increment we are asking for, funds for repairs and modifications, including such projects as fencing, caging, replacement and repair of water and sewer lines in order to get the first increment of use.

Mrs. HANSEN. How much will follow this?

Mr. BROOKS. I will turn that over to Dr. Reed if I may.

Dr. REED. For construction at the Front Royal facility we estimate—again we do not know exactly because we have had it for such a short period of time and plans are not developed, but we hope to ask for perhaps \$2 million to \$3 million over a period of years primarily for animal housing needs. It will be a slow and deliberate development.

Mrs. HANSEN. What is your acreage up there?

Dr. REED. The acreage we hope will be given to the Smithsonian Institution is 3,400 acres. Barns are there, waterlines are in, firelines are in, sewage is in. It is almost like dying and going to heaven when you go to a place like that—that is, for a zoo man.

Mrs. HANSEN. You are requesting for the History and Technology Building and Natural History Building, fire control systems for \$150,000.

Mr. BROOKS. This is continuation of a project which for the two buildings we anticipate will cost about \$750,000.

Mrs. HANSEN. How much have you already spent?

Mr. BROOKS. The appropriation in 1974 was \$75,000 for the two buildings. We are asking for \$150,000 this year. It will be approximately a 5-year project.

Mrs. HANSEN. Next you show Tropical Research Institute Laboratory improvements, \$75,000.

Mr. BROOKS. This is to serve an opportunity which has come up in the last year to use the Tivoli Hotel site in the Canal Zone to provide some very much needed space for labs and administration of the Tropical Research Institute. What is left of the hotel is a very adequate concrete structure out building which we have managed to get occupancy of.

Mrs. HANSEN. How did you acquire it?

Mr. RIPLEY. The Canal Zone Government released it. It was the remains of the old Tivoli Hotel.

Mrs. HANSEN. Is this the first increment?

Mr. BROOKS. This is the first increment.

Mrs. HANSEN. How much more?

Mr. BROOKS. We don't have that exactly. It might come to two or three times that before we are through.

Mrs. HANSEN. What will this provide?

Mr. BROOKS. It will provide space for the research staff of the Tropical Research Institute down there who are now compelled to use a kind of hot turnover system in their lab facilities. They do not have enough space to provide one space for one scientist. They have to share their facilities and they are extremely crowded.

Mr. RIPLEY. They have a small part of the Gorgas Hospital which they have been allowed to use. It is crowded and not at all suitable for them. There seemed to be a possibility of making this an administrative and research headquarters right in the same building which then would belong to the Smithsonian.

Mrs. HANSEN. You are requesting \$35,000 for the Fine Arts and Portrait Galleries storage space and temperature control.

Mr. BROOKS. This is a one-time request. The funds requested will complete the project.

Mrs. HANSEN. How much have you spent?

Mr. BROOKS. On these particular areas essentially nothing. The two areas, the storage space under the courtyard and the space which we are now using in the basement of the building, have never been improved.

Mr. RIPLEY. They have never been developed since we took over the building. It is a very strange area under the courtyard. It looks like a military magazine or something of that sort—iron doors which must go back to the Civil War. I think records were kept in there by the Patent Office. It is damp and humid and needs to be dried out and made serviceable for storage.

Mrs. HANSEN. The Arts and Industries Building renovation, \$300,000. How much have you spent so far and is involved here?

Mr. BROOKS. This will be the last increment prior to the Bicentennial.

Mrs. HANSEN. How much have you spent to date?

Mr. BROOKS. The amount appropriated to date including planning, decking, and the major air conditioning and other restoration is about \$4 million. That will do the major job of installing the air-conditioning and the renovation of the interior. This requested funding is primarily the exterior renovation, the windows, and some small exterior work.

Mrs. HANSEN. This finishes it?

Mr. BROOKS. Yes, this will complete the work required to be finished by the Bicentennial.

Mrs. HANSEN. Next is the South Yard improvements, \$300,000.

Mr. BROOKS. This is the quadrangle lying between the Smithsonian, the Arts and Industries, and the Freer Gallery buildings on Independence Ave. It is occupied by parking and temporary buildings, including the shed in which the old Aerospace Building now is.

With the completion of the new National Air and Space Museum it is now possible to clear that yard and redo it as a visitor amenity.

MR. RIPLEY. This is the old Quonset hut where the Aerospace Museum has exhibits presently and a number of old wooden buildings, including some old research laboratories going back to the period of Secretary Langley at the turn of the century. We hope to eliminate the whole group and restore it. We think of it as a sort of college quadrangle.

MRS. HANSEN. Will this money do it?

MR. BROOKS. Yes, with some funds already available for the roads and grounds, for the Bicentennial Year. There may be further development we have not yet gone into in terms of planning.

MRS. HANSEN. You are requesting \$50,000 for library space improvements. What is this about?

MR. BROOKS. This is a continuing program to upgrade the rather crowded and inadequate space in the Natural History Building which is where we have the central library. This project was started in 1971 and has been continuing since then. This third phase, which I cannot say is the last time we will come to you for the library, again helps us to store and take care of the volumes and the facilities for staff and for the library people to manage and handle the books.

MRS. HANSEN. What is the total amount which has been spent to date?

MR. BROOKS. Funding of \$110,000 has been appropriated since 1971.

MRS. HANSEN. Next is General Building and Facility Repairs and Improvements, \$90,000. What is this?

MR. RIPLEY. This represents the general needs of some eight or nine major museums and other facilities. It includes such things as roof repairs, sidewalk repairs, the necessary things which have to be done.

MRS. HANSEN. Your own buildings or those rented from GSA?

MR. RIPLEY. Our own buildings.

NATIONAL AIR AND SPACE MUSEUM

MRS. HANSEN. You are requesting \$10 million to liquidate contract authority for the National Air and Space Museum. How much of the \$17 million appropriated in fiscal year 1974 has been obligated?

MR. OFFENBACHER. We have obligated \$29,600,000 of the total project.

MRS. HANSEN. You know it was in two steps.

MR. OFFENBACHER. That is right.

MRS. HANSEN. What I am asking is how much of the \$17 million appropriated in 1974 is obligated.

MR. OFFENBACHER. \$16 million.

MRS. HANSEN. Do you expect an unobligated balance in this account at the end of fiscal year 1974?

MR. OFFENBACHER. No, we do not.

MRS. HANSEN. Why?

MR. OFFENBACHER. We expect to spend all the money we have.

MRS. HANSEN. Do you need the entire \$10 million requested for the Air and Space Museum in fiscal year 1975?

MR. OFFENBACHER. We would need \$7 million actually.

Mrs. HANSEN. Is that excluding the \$1 million you have left from 1974 or would this include that amount?

Mr. OFFENBACHER. It excludes it.

Mrs. HANSEN. What you need is \$7 million plus the \$1 million?

Mr. OFFENBACHER. That is right.

Mrs. HANSEN. Mr. Long.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

Mr. LONG. I note that the operations budget for the Hirshhorn Museum is almost as large as that of the National Collection of Fine Arts and more than that of the National Portrait Gallery and the Freer Gallery. Why is this so, as the Hirshhorn has not yet opened its doors to the public?

Mr. RIPLEY. For the last 2 years [fiscal year 1973 and fiscal year 1974] the Hirshhorn Museum and Sculpture Garden has been acquiring on a one-time basis furniture and furnishings for the building. Therefore a budget comparable to the National Portrait Gallery and the National Collection of Fine Arts for these years for the Hirshhorn would have been well under their operating budgets.

The Freer Gallery of Art receives a relatively small Federal budget each year which is in addition to a larger privately funded budget. Therefore, this budget is not comparable to other operating budgets which are entirely Federal.

The Hirshhorn Museum and Sculpture Garden is expected to open in October 1974. In order to open an operating museum to the public, it takes years of staff work. A staff is not hired and the building opened shortly thereafter. Exhibit catalogs have to be written, labels and brochures developed, films, educational materials and tours developed, which all take months of time. Therefore, you have a museum staff well before you have a museum open to the public.

Museums are not comparable to each other and therefore comparisons of operating budgets are not easy. The Hirshhorn Museum occupies an entire structure with approximately 4½ acres of exhibition space including the sculpture garden. The Hirshhorn collection contains approximately 6,000 works of art. The National Collection of Fine Arts and the National Portrait Gallery occupy one building jointly, and the National Collection of Fine Arts also is responsible for the Renwick Gallery of Art. Therefore a comparison of the operating budgets of these museums will always be difficult.

NEED FOR MAINTENANCE INCREASE

Mr. LONG. An increase of \$1,384,000 is sought for maintenance of Smithsonian property. Please describe the extent to which Smithsonian facilities have fallen into disrepair or other reasons for this increase.

Mr. RIPLEY. The increase of \$1,384,000 is being sought to fund custodial, mail, horticultural, and transportation requirements as well as maintenance requirements for new and existing facilities. A total of 9 new positions and \$78,000 is being requested for the new Hirshhorn Museum and 31 positions and \$193,000 are being requested for the new National Air and Space Museum. This leaves a requested increase of 74 positions and \$1,113,000 to fund custodial, transportation, horti-

cultural, mail delivery, and maintenance requirements in existing facilities.

Custodial and labor personnel are required to provide services for approximately 3,656,000 square feet of floor area, encompassing collection areas, offices, restrooms, workrooms, laboratories, and exhibit areas. Over the years, personnel and financial resources have fallen consistently short of levels required to sustain adequate performance. In addition, increased demands for services, including moves of furnishings, equipment, and collections and the addition of more exhibit areas, have further strained the capability of existing custodial and labor forces.

The requested increase will enable the Institution to improve operation of its preventive and corrective maintenance program and to provide manpower to meet the ever increasing demands of the program units. In addition, the increase will provide staffing for a recently established horticultural program, which is intended to provide maintenance to 75 acres of grounds, planting and park areas; provide a trained moving force to ensure the safe movement of collections; and provide one additional mail clerk to improve the pick up and delivery of mail to Smithsonian offices on and off the Mall.

ADMISSION CHARGES

Mr. LONG. What consideration has the Smithsonian given to adopting nominal admission charges to the museums and the Zoo in order to provide a base of funds in addition to appropriated funds?

Mr. RIPLEY. The Smithsonian Institution has considered charging a nominal admission charge to the museums and the Zoo.

It has always been considered that a general admission would be contrary to our traditional policy of being a free public museum.

We have from time to time considered charging admission fees to special exhibitions within the buildings. In fact, this has been done upon occasion and not too successfully.

An admission fee will be charged for the Hillwood Museum and last year paid automobile parking was begun at the National Zoological Park.

At the September 27, 1971, meeting of the Smithsonian's Board of Regents, one of the Regents asked again about the possibility of museum admission charges with reference to institutions in general.

The following is an extract from "Proceedings of the Annual Meeting of the Board of Regents, Smithsonian Institution, January 27, 1972".

MUSEUM ADMISSION CHARGES

Secretary Ripley stated that at the last meeting of the Board, Senator Fulbright has asked us to follow up on the question of museum admission charges with reference to institutions in general. One of the current places where this has been under hot debate is England. Charles Blitzler has prepared a report (appendix A) based on a survey he conducted while in England recently which summarizes the present status of the matter there.

There was a general discussion of the pros and cons of charging admissions to museums and to Zoos and also to the companion question of charging for parking, particularly at zoological parks. While recognizing the prevalence of charging for admission and the desirability of continuing studies of admission charges, the consensus of the meeting was that a charge for automobile parking should

first be put into effect at the Zoo. Subsequently, on the basis of our experience as to public reaction, attendance, revenues, and expenses of collection and further studies of charges elsewhere, further consideration could be given to the question of charging for admission to the Zoo and to the museums and galleries.

The Secretary commented that he anticipated that when the Cooper-Hewitt in New York has been completed, an admission charge will be instituted. Also, he noted that when Hillwood is open as a museum, an admission charge will be made.

It is interesting to note that after establishing charges to the 18 national museums in Great Britain, one of the first moves of Prime Minister Harold Wilson's Labour government was to cease charging admission. Therefore, starting March 30, the British will once again be able to enter the museums free of charge.

CHESAPEAKE BAY CENTER

Mr. LONG. I am pleased to note the stepping up of activities of the Chesapeake Bay Center for Environmental Studies. Based on the ecological information gathered in research on the 2,500-acre center, does the Smithsonian plan to comment on projects elsewhere in the Bay which threaten to despoil this prime estuarine environment—such as the proposed Diked Sludge Disposal Site at Hart and Millers Islands?

Dr. CHALLINOR. The Smithsonian Institution has not been asked to comment on the Diked Sludge Disposal Sites. It is expected that the question would be directed to the organization known as the Chesapeake Research Consortium, Inc.

The Smithsonian Institution was asked to comment on the feasibility of making bricks. Mr. J. Kevin Sullivan, Assistant Director, Chesapeake Bay Center for Environmental Studies, gave the following appraisal.

It is our understanding that the process of making ceramic brick and construction aggregate from sediments is technically feasible. The Maryland Department of Natural Resources has been in contact with Professor Rhoads, the originator of the process, to determine the applicability of his work to the Hart-Miller project.

At this time, we have no information about similar works possibly being carried out in Japan.

Mr. Jack W. Pierce, Curator, Sedimentology, Department of Paleobiology, also commented on the same project.

Usefulness of the material for ceramics would be highly dependent upon the type of material in the dredge spoil. I see no problem in getting rid of oxidizable oils and chemicals but some clays will not make suitable bricks no matter what is done to them. One also has the problem of separation of metal components, such as flip-top lids, from the material.

One would think that the hedging employed by the Corps suggests that they think that the process might not work. General extensive tests are made on soil deposits before money is committed to erection of a brick factory. It would seem that much of the material to be dredged from Baltimore Harbor is the antithesis of brick clay.

ADDITIONAL JUSTIFICATION MATERIAL

Mrs. HANSEN. Please insert pages D-1 through D-31 in the record.
[The pages follow:]

SMITHSONIAN INSTITUTION
"Salaries and Expenses"

Report of Obligations by Objects
(In thousands of dollars)

	1973 <u>Actual</u>	1974 <u>Estimate</u>	1975 <u>Estimate</u>	Increase <u>'75 over '74</u>
11 Personnel Compensation.....	32,062	36,836	42,254	5,418
12 Personnel Benefits.....	2,716	3,170	3,659	489
21 Travel & Transportation of Persons.....	554	672	784	112
22 Transportation of Things.....	249	305	329	24
23 Rent, Communications, and Utilities.....	3,390	3,873	5,144	1,271
24 Printing and Reproduction....	602	706	1,511	805
25 Other Services.....	6,471	6,166	8,790	2,624
26 Supplies and Materials.....	2,055	2,381	3,101	720
31 Equipment.....	3,303	3,160	2,785	-375
32 Lands and Structures.....	0	0	0	0
41 Grants.....	1,812	3,022	3,193	171
42 Insurance, Claims, and Indemnities.....	<u>5</u>	<u>0</u>	<u>9</u>	<u>9</u>
Total Obligations.....	53,219	60,291	71,559	11,268
Lapsing.....	<u>14</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Appropriation.....	53,233/ ¹	60,291/ ²	71,559/ ³	11,268/ ³

^{/1} This amount includes \$51,633 for Salaries and Expenses and \$1,600 for Science Information Exchange.

^{/2} This amount includes \$58,596 for Salaries and Expenses and \$1,695 for Science Information Exchange. Also includes \$3,203 for pay supplemental.

^{/3} This amount includes \$1,856 for necessary pay and \$1,044 for other uncontrollable increases.

SMITHSONIAN VISITORS
(By fiscal year)

Fiscal Year	Smithsonian Institution Building	Arts and Industries Building	Museum of Natural History	National Air & Space Building	Freer Gallery of Art	Museum of History & Technology	Fine Arts & Portrait Gallery	Renwick Gallery	Total ^{9/}
1961	1,024,526	2,912,371	2,047,973	987,858	130,746	(1)	(3)	(10)	7,103,474
1962	1,222,112	3,471,050	2,113,053	1,986,319	130,597	(1)	(3)	(10)	8,923,131
1963	1,630,280	3,534,182	2,288,397	2,673,618	183,359	(1)	(3)	(10)	10,309,836
1964	1,311,061	2,457,243	2,512,306	1,854,186	168,625	2,509,774 ^{1/}	(3)	(10)	10,813,195 ^{2/}
1965	1,065,635	2,028,175	3,051,472	1,705,683	210,972	5,091,776	(3)	(10)	13,153,713
1966	870,010	1,746,715	2,988,006	1,494,922	222,089	4,829,112	(3)	(10)	12,150,854
1967	1,020,312	1,638,873	3,409,957	1,484,422	212,920	5,546,102	(3)	(10)	13,312,586 ^{4/}
1968	847,176 ^{5/}	1,344,622	3,257,957	1,123,698	169,533	4,750,023	(3)	(10)	11,523,897 ^{6/}
1969	275,255 ^{5/}	1,493,141	2,916,749	1,225,959	179,374	4,174,071	166,177	(10)	10,430,730 ^{7/}
1970		2,537,155 ^{6/}	3,269,791	1,839,373	217,305	5,483,555	216,523	(10)	13,583,702 ^{8/}
1971	681,255	1,985,732	3,456,755	1,337,445	190,425	5,955,128	194,468	(10)	13,801,208
1972	819,617	2,306,071	3,414,640	1,104,151	230,475	6,808,526	246,657	105,186	15,035,323
1973	807,294	2,285,603	3,306,105	1,223,917	204,858	6,905,339	254,005	165,846	15,152,967

^{1/} Museum of History and Technology opened January 1964

^{2/} July-August 1964, certain Smithsonian Institution buildings were open 4:30 to 10 p.m. for the first time.

^{3/} National Collection of Fine Arts opened May 1968 and the National Portrait Gallery in October 1968.

^{4/} Reflects the significant decrease in visitors to the Nation's Capital in the first six months of CY 1968 due to unsettled local conditions.

^{5/} Building closed for renovation October 1968.

^{6/} Since the first display of the Lunar sample in September 1969, visitors to this building have averaged approximately 270,000 per month.

^{7/} Fiscal year 1969 visitor totals represent the effect of local conditions in late 1968 on visitor attendance. During CY 1969, a total of 12,438,909 visitors came to the Smithsonian, an increase of 25 percent over CY 1968.

^{8/} Reflects a significant increase of 30 percent in visitors to the Smithsonian's Museums and Galleries.

^{9/} An additional 5,000,000 visitors to the National Zoological Park annually and 50,000 to the Anacostia Museum are excluded from these totals.

^{10/} Renwick Gallery opened January 1972.

Financial Report

T. AMES WHEELER, *Treasurer*

FY 1973

IT IS A PLEASURE to report that substantial progress was made in the financial affairs of the Institution in Fiscal Year 1973. Increased federal support was provided for on-going educational, research, and exhibition programs, the construction of the new National Air and Space Museum, and preparation of major exhibitions for the 1976 program for celebration of the Bicentennial of the American Revolution. Support in the form of grants and contracts, gifts and bequests, and other nonfederal-funds income also increased. Additional funds are, however, now urgently needed to meet Institutional commitments toward a number of important projects, notably the reestablishment of the Cooper-Hewitt Museum of Decorative Arts and Design and completion of the land acquisition and building program of the Chesapeake Bay Center for Environmental Studies.

The Institution's revenue-producing activities, representing an important element of our efforts toward "self-help," produced an overall gain for the first time and contributed to the much larger favorable FY 1973 balance in our relatively small but vitally important unrestricted private trust funds. As a part of such efforts we continued to lay the groundwork for a collections-related product development program which, in addition to extending our educational efforts, should soon become an important source of additional financial support.

Overall Sources and Application of Financial Support

Financial affairs of the National Gallery of Art, the John F. Kennedy Center for the Performing Arts, and the Woodrow Wilson International Center for Scholars which are related to, but largely administered independently of the Smithsonian, are not included in this Financial Report. Total financial support from all sources for the Institution, exclusive of those organizations is summarized in Table 1.

TABLE 1.—Overall Sources of Financial Support
[In \$1,000's]

Sources	FY 1970	FY 1971	FY 1972	FY 1973
OPERATING FUNDS				
Federal appropriation:				
Salaries and expenses.....	\$32,679	\$36,895	\$44,701	\$51,633
Smithsonian Science Information Exchange.....	*	*	1,600	1,600
Special Foreign Currency Program.....	2,316	2,500	3,500	3,500
Subtotal.....	\$34,995	\$39,395	\$49,801	\$56,733
Research grants and contracts.	10,825*	9,312*	8,088	8,996
Nonfederal funds:				
Gifts (excluding gifts to endowments)				
Restricted purpose.....	2,290	1,905	2,618	3,107
Unrestricted purpose.....	18	304**	26**	33**
Income from endowment and current funds investment				
Restricted purpose.....	999	1,372	1,573	1,736***
Unrestricted purpose.....	281	330	334	436
Revenue producing activities (gross).....				
Less costs and expenses.	(3,841)	(5,240)	(6,586)	(8,313)
Miscellaneous.....	503	406	548	1,118
Total nonfederal funds.	3,050	3,783	4,958	6,600***
Total Operating Support.....	\$48,870	\$52,490	\$62,847	\$72,329
CONSTRUCTION FUNDS				
(Federal)				
National Zoological Park.....	\$ 600	\$ 200	\$ 200	\$ 675
National Air and Space Museum.....				
Joseph H. Hirshhorn Museum.	3,500	5,200	3,697	—0—
Restoration and renovation of buildings.....	525	1,725	550	5,014
Total Construction Funds.....	\$ 4,625	\$ 7,125	\$ 6,347	\$45,689

* SSIE funded by NSF contract in FY 1970 (\$1,707,000) to FY 1971 (\$1,400,000) and thereafter by direct federal appropriation.

** Excluding gifts to Associates (included under Revenue Producing Activities).

*** Includes \$225,000 of FY 1973 income transferred from Endowment Fund #3 for this purpose in FY 1972.

****\$13,000,000 in new obligational authority plus \$27,000,000 in contract authority.

TABLE 2.—*Source and Application of Funds for Year Ended June 30, 1973*
[In \$1,000's]

Nonfederal funds							
Funds	Federal funds	Total nonfederal funds	Unrestricted		Restricted		Grants and contracts
			General	Revenue producing	Endowment income	Gifts	
FUND BALANCES—							
1 July 1972.....	\$ -0-	\$ 4,888	\$ 1,781	\$ -0-	\$ 551	\$ 2,506	\$ 50
FUNDS PROVIDED							
Federal Appropriations.....	\$53,233						
Investment Income.....		\$ 1,947	\$ 436	\$ —	\$ 1,460	\$ 51	\$ —
Grants and Contracts.....		9,027	—	—	—	—	9,027
Gifts.....		3,297	33	157	72	3,035	—
Sales and Revenue.....		8,948	297	8,319	—	332	—
Less: Cost of Sales.....		(5,207)	—	(5,207)	—	—	—
Other.....		496	77	7	117	295	—
Total Provided.....	\$53,233	\$18,508	\$ 843	\$ 3,276	\$ 1,649	\$ 3,713	\$ 9,027
Total Available.....	\$53,233	\$23,396	\$ 2,624	\$ 3,276	\$ 2,200	\$ 6,219	\$ 9,077
FUNDS APPLIED							
Science:							
Environmental Science.....	\$ 1,201	\$ 1,264	\$ 42	\$ —	\$ —	\$ 165	\$ 1,057
Natl. Museum of Nat. Hist....	6,277	1,323	3	—	114	160	1,046
Natl. Zoological Park.....	4,057	28	12	—	—	13	3
Fort Pierce Bureau.....	—	1,032	—	—	—	1,082	—
Science Info. Exchange.....	1,600	—	—	—	—	—	—
Smithsonian Astroph. Observatory.....	2,972	5,330	18	—	33	166	5,113
Radiation Biology Lab.....	1,313	100	3	—	21	—	76
Smithsonian Tropical Research Inst.....	947	68	2	—	2	4	60
Interdisciplinary Communications Pgm.....	—	536	—	—	—	26	510
Natl. Air and Space Museum..	1,122	240	4	—	158	10	68
Other Science.....	840	733	37	—	24	55	617
Total.....	20,329	10,704	121	—	352	1,681	8,550
History and Art:							
Natl. Portrait Gallery.....	1,028	31	2	—	—	19	10
Natl. Collection of Fine Arts...	1,361	46	12	—	4	30	—
Freer Gallery.....	177	1,015	—	—	1,015	—	—
Natl. Museum of History and Technology.....	2,858	344	61	—	38	197	48

TABLE 2.—*Source and Application of Funds for Year Ended June 30, 1973—Continued*
[In \$1,000's]

Funds	Nonfederal funds						
	Federal funds	Total nonfederal funds	Unrestricted		Restricted		Grants and contracts
			General	Revenue producing	Endowment income	Gifts	
Cooper-Hewitt Museum.....	—	417	—	—	—	389	28
Archives of American Art.....	203	135	—	—	—	135	—
Bicentennial of the American Revolution.....	780	—	—	—	—	—	—
Hirshhorn Museum.....	1,125	43	43	—	—	—	—
Other History & Art.....	490	245	2	—	—	143	100
Total.....	8,022	2,276	120	—	1,057	913	186
<i>Public Service:</i>							
Revenue Producing Activities							
Smithsonian Press.....	761	99	—	99	—	—	—
Performing Arts.....	353	472	—	270	—	12	190
Smithsonian Magazine.....	—	1,015	—	1,015	—	—	—
Associates.....	—	671	—	671	—	—	—
Museum Shops.....	—	610	—	610	—	—	—
Other.....	—	407	—	407	—	—	—
Anacostia Museum.....	258	69	22	—	—	18	29
Reading Is Fundamental.....	—	542	—	—	—	542	—
Other Public Service.....	881	63	32	—	—	3	28
Total.....	2,253	3,948	54	3,072	—	575	247
<i>Museum Programs:</i>							
Libraries.....	1,048	4	—	—	—	4	—
Exhibits.....	3,039	52	—	—	—	30	22
Natl. Museum Act Pgms.....	794	—	—	—	—	—	—
Other Museum Programs.....	1,779	50	14	—	—	34	2
Total.....	6,660	106	14	—	—	68	24
<i>Buildings Management and Protection Services:</i>							
Administration.....	11,982	—	—	—	—	—	—
Overhead Recovered.....	3,987	2,822	175	410	106	259	1,872
Transfers for Designated Purposes.....	—	(2,772)	(125)	(410)	(106)	(259)	(1,872)
Total.....	—	90	(59)	204	278	(322)	(11)
Total Funds Applied...	\$53,233	\$17,174	\$ 300	\$3,276	\$1,687	\$2,915	\$8,996
FUND BALANCES—							
30 June 1973.....	\$ —0—	\$ 6,222	\$2,324	\$ —0—	\$ 513	\$3,304	\$ 81

Thus, total support for operating purposes in FY 1973 exceeded \$72 million, up about \$10 million from the previous year. Of this amount, federal appropriations provide 79 percent, research grants and contracts another 12 percent, and the Institution's nonfederal income the remaining 9 percent.

In addition Congress approved construction fund appropriations of \$45,689,000 principally to complete, over a four-year period, the new National Air and Space Museum. Other construction funds will provide for air conditioning and renovation of the 1879 Arts and Industries Building.

The sources and applications of all of these operating funds (excluding construction funds and also excluding the Special Foreign Currency Program) are shown in Table 2.

Federal Operating Funds

As shown in the tables, Smithsonian federal appropriations for operating purposes totaled \$56,733,000, including \$1,600,000 for the Smithsonian Science Information Exchange, a separately incorporated organization, and \$3,500,00 for the Special Foreign Currency Program in the form of blocked currencies of certain foreign countries administered as grants to some 220 U.S. universities and similar institutions to conduct research studies in those countries (see Table 3).

TABLE 3.—*Special Foreign Currency Program, Fiscal Year 1973 Obligations*
[In \$1,000's]

Country	Archeology	Systematic and environ- mental biology	Astrophysics and earth sciences	Museum Programs	Grant adminis- tration	Total
India.....	\$1,299.0	\$102.6	\$ 3.4	\$ 21.9	\$17.0	\$1,443.9
Morocco.....	162.0	19.3	2.2	—	—	183.5
Pakistan.....	39.8	23.4	1.5	—	—	64.7
Poland.....	58.1	28.9	69.6	98.8	14.0	269.4
Tunisia.....	80.5	372.6	2.2	16.0	12.0	483.3
Egypt.....	730.6	77.6	.1	7.0	6.9	822.2
Yugoslavia....	131.0	256.5	4.6	—	2.2	394.3
Burma.....	.1	—	—	—	—	.1
Total..	\$2,501.1	\$880.9	\$83.6	\$143.7	\$52.1	\$3,661.4*

* Includes unexpended balance of FY 1972 appropriation carried forward for use in FY 1973.

Excluding such special purpose appropriations, federal operating funds of \$51,633,000 were \$6,932,000 greater than in FY 1972. Of this increase, over \$3,500,000 was needed for legislated increases in federal salaries. Nevertheless, the increased federal funds will also provide for continued preparations for the opening of the Hirshhorn Museum, for increased Bicentennial activities, for National Air and Space Museum exhibits and for maintenance, protection and other support areas which will be a high priority in future years' budgets. Allocation of the appropriations for operating purposes (excluding Foreign Currency Program) by broad activity areas over the past several years is shown in Table 4.

Grants and Contracts

Many of the Institution's important research programs are supported by grants and contracts, the major portion of which are from federal agencies; see Table 5. This type of support increased to nearly \$9 million in FY 1973, approximately half of this amount coming from the National Aeronautics and Space Administration for projects of the Smithsonian Astrophysical Observatory, such as satellite tracking, analysis of lunar samples, and the operation of the Mount Hopkins, Arizona, Observatory. The remainder went largely to support a large variety of other scientific projects ranging from study of endemic Asian diseases to ecological studies of the Chesapeake Bay area.

TABLE 4.—*Application of Federal Appropriations, FY 1970 through FY 1973, Excluding Special Foreign Currency Program*
[In \$1,000's]

<i>Area</i>	<i>FY 1970</i>	<i>FY 1971</i>	<i>FY 1972</i>	<i>FY 1973</i>
Science.....	\$11,761	\$13,495	\$18,365*	\$20,329*
History and Art.....	5,081	5,878	6,285	8,022
Public Service.....	1,445	1,442	2,093	2,253
Museum Programs.....	3,592	3,744	5,881	6,660
Administration.....	2,733	3,051	3,235	3,987
Building Maintenance and Protection...	8,067	9,285	10,442	11,982
Total.....	\$32,679	\$36,895	\$46,301	\$53,233

* Includes \$1,600,000 for the Science Information Exchange which had been funded prior to 1972 by grants from the National Science Foundation.

TABLE 5.—*Grants and Contracts*
[In \$1,000's]

<i>Federal agencies</i>	<i>FY 1970</i>	<i>FY 1971</i>	<i>FY 1972</i>	<i>FY 1973</i>
Atomic Energy Commission.....	\$ 86	\$ 91	\$ 73	\$ 76
Department of Commerce.....	4	166	392	203
Department of Defense.....	1,103	843	916	969
Department of Health, Education and Welfare.....	447	409	411	306
Department of Interior.....	112	258	247	230
Department of State.....	21	176	195	593
National Aeronautics and Space Administration.....	6,561	4,930	4,605	4,923
National Science Foundation.....	2,246*	2,028*	560	957
Other.....	245	411	689	739
Total.....	\$10,825	\$9,312	\$8,088	\$8,996

* Includes funding for SSIE of \$1,707,000 in FY 1970 and \$1,400,000 in FY 1971.

Private Trust Funds

In addition to federal appropriations and grants and contracts, the Smithsonian also received \$6,600,000 of private funds from gifts (excluding gifts to endowment funds), endowment fund income, revenue-producing activities, concession fees and other miscellaneous sources, as shown in Table 1. While such support has increased in recent years, it is still well below the Institution's goal for achieving a better balance of support from nonfederal sources. This income is, furthermore, largely dedicated to specific restricted purposes as shown in Table 6.

TABLE 6.—*Total Private Funds Income for Fiscal Year 1973*
[In \$1,000's]

<i>Revenue sources</i>	<i>Unrestricted purposes</i>	<i>Restricted purposes</i>	<i>Total</i>
Investments.....	\$ 436	\$1,736*	\$2,172*
Gifts.....	33**	3,107	3,140**
Revenue Producing Activities.....	170	—	170
Concessions and miscellaneous.....	374	744	1,118
Total.....	\$1,013	\$5,587	\$6,600

* Includes \$225,000 of FY 1973 income transferred from Endowment Fund #3 for this purpose in FY 1972.

** Excluding \$157,000 gifts to Associates (included under Revenue Producing Activities) and \$114,000 gifts to Endowment Funds.

Unrestricted Private Funds.—As has been continually emphasized in these reports, a strong and well-balanced position for the Institution's unrestricted private funds is absolutely essential to the maintenance of its unique character among government-related organizations. These funds permit the flexibility of operation and high degree of nonpolitical objectivity which contribute importantly to innovative and lively programs, create special attraction to visitors and donors of collections of objects of national interest, and maintain the Institution's worldwide acceptance in scientific and cultural fields. The attention given by management to strengthening this portion of Smithsonian finances in recent years has resulted in very substantial improvement as shown in the summary of its unrestricted private accounts given in Table 7.

TABLE 7.—*Unrestricted Private Funds*
[In \$1,000's]

	FY 1970	FY 1971	FY 1972	FY 1973
INCOME:				
Investment.....	\$ 323	\$ 334	\$ 334	\$ 436
Gifts.....	18	304	26	33
Concession and Miscellaneous.....	540	215	197	374
Total Income.....	\$ 881	\$ 853	\$ 557	\$ 843
EXPENDITURE:				
Administrative Expense.....	3,256	2,723	2,994	3,242
Less Administrative Recovery.....	2,435	2,254	2,639	2,772
Net Administrative Expense.....	821	469	355	470
Revenue Producing Activities				
Associates— <i>Smithsonian Magazine</i>	(472)	(209)	2	330
—Other.....	(41)	10	74	(43)*
Shops.....	(28)	(80)	19	47
Press.....	(200)	(159)	(111)	(109)
Performing Arts.....	(167)	(78)	(50)	(65)
Product Development.....	—	—	—	69
Other Activities.....	(133)	(18)	(75)	(59)
Total Activities.....	(1,041)	(534)	(141)	170
Total Expenditures.....	1,862	1,003	496	300
Net Gain (Loss).....	(981)	(150)	61	543
ENDING Balance.....	\$1,870	\$1,720	\$1,781	\$2,324

*After charges for portion of Development Office treated as administrative expense in prior years.

From this it may be seen that after gaining a small positive balance in Fiscal Year 1972, Fiscal Year 1973 showed very substantial further improvement. The net gain of \$543,000 for the year raised the unrestricted fund balance to \$2,324,000, moving it a considerable distance toward our goal of restoring unrestricted working capital funds to at least the \$3,000,000 needed to finance more comfortably the advances required for our participation in contract research work, to carry our Museum Shop and publications inventories, and to handle normal financial needs for payrolls, services, and supplies.

Increased investment income, principally from short-term investment of larger advance magazine subscription monies, was a factor in this improved FY 1973 result. Most important to the achievement of the more favorable result for unrestricted funds in FY 1973 was the \$311,000 improvement in the overall results of the revenue-producing activities which for the first time enabled them to make an overall positive contribution to Institutional finances. Additional detail on these activities is shown in Table 8.

Among these activities the most outstanding improvement was shown by the magazine *Smithsonian* which produced a net gain of \$330,000, compared with approximately a break-even performance in FY 1972. The enthusiastic reception given to this publication, which is designed primarily to extend the Institution's educational efforts and build a constituency of interested citizens throughout the Nation, is evidenced by the rapid gain in circulation in FY 1973 which rose from 330,000 National Associate members as of 30 June 1972 to 458,000 as of 30 June 1973.

The increased attention being devoted to our Museum Shops is producing favorable results. The 33 percent gain in sales in FY 1972 was followed by a further 18 percent increase in FY 1973 to \$1,622,000, and net income rose to \$47,000 this year compared to \$19,000 in FY 1972. Planning is now underway for relocation and redesign of some of the Shops and for an up-grading of the type of merchandise handled. Continuing gains are, therefore, expected over the next several years. It is interesting to note that the new guidebook, *Seeing the Smithsonian*, which became available only in June 1973 has obviously met a strong visitor need and is having a distinct impact on the Museum Shop sales.

The first tangible financial results of the new Product Development Program appeared in FY 1973 with advance royalty receipts of \$118,000. This program, which was originated to further the educational efforts of our museums through obtaining closely related merchandise for our Museum Shops, shows great promise not only of accomplishing this objective but also providing substantial and

TABLE 8.—*Revenue Producing Activities for Fiscal Year 1973*
[In \$1,000's]

Item	Total	Associates						
		Museum shops	Press*	Smithsonian magazine	Other	Per-forming Arts	Product develop-ment	Other**
Sales and Revenues	\$8,319	\$1,622	\$ 81	\$4,731	\$1,104	\$205	\$118	\$458
Less Cost of Sales	5,207	966	97	3,386	633	—	—	125
Gross Income	3,112	656	(16)	1,345	471	205	118	333
Gifts	157	—	—	—	157	—	—	—
Other Income	7	—	6	—	—	—	—	1
Total Income	3,276	656	(10)	1,345	628	205	118	334
Expenses	2,696	484	87	865	610	246	49***	366
Income (loss) before charge for administrative costs	580	172	(97)	480	18	(41)	69	(21)
Less Administrative Costs	410	125	12	150	61	24	—	38
NET INCOME (loss)	\$ 170	\$ 47	\$(109)	\$ 330	\$ (43)****	\$(65)	\$ 69	\$(59)

* The privately funded activities of the Press as opposed to the federally supported publication of research papers.

** Includes Traveling Exhibitions, Belmont Conference Center, Photo Sales, and the "Commons" Restaurant.

*** This includes a transfer of \$34,000 to Smithsonian bureaus participating in this program.

**** After charges for portion of Development Office treated as administrative expense in prior years.

increasing income in future years. Agreement was reached during FY 1973 with the Tonka Corporation, a leading U.S. toy manufacturer, under which that corporation will manufacture and sell, in close coordination with the Smithsonian, a line of museum-related products, the first of which should appear in the spring of 1974. Somewhat similar arrangements with CBS/Education & Publication Group led to the publication of the new Smithsonian guidebook, now being sold in large numbers both in our Museum Shops and outside the Institution. A reprinting of the guidebook, including four foreign-language translations, is expected in October 1973. Similar agreements with manufacturers in a number of other product fields are now under consideration. Great care is being taken in these efforts to insure strict standards of quality, authenticity,

and good taste in all phases of the products' design, manufacture, promotion, and sale.

Additional "self-help" efforts include a variety of other undertakings from the attractive new Smithsonian-McGraw Hill Bookstore in the National Museum of History and Technology and the inauguration of modest parking fees at the National Zoological Park to audiophone museum guidance operations, catalogue publishing, and the sale of photographic slides and "first-day covers" of historic events in aviation history. The Bookstore, opened in June 1972, completed a successful first year in FY 1973. The operation of the parking-fee facilities at the Zoo begun in April 1973 is handled by the Friends of the National Zoo, who also operate the Zoo shops and mobile train service, under an agreement whereby they direct a portion of the net receipts to new educational programs at the Zoo with the remaining portion of these net receipts being reserved by the Institution toward improving and enlarging Zoo parking facilities in the future in a manner designed eventually to make available an additional 12 acres of park area for animal care.

These growing Smithsonian efforts appear to promise greater success in the future in bolstering private funding to a somewhat better balance with our federal support. There is, nevertheless, a real need for an increase also in donations from corporations, foundations, and individuals and a need to build a nationwide constituency of interest in and support for this national institution. This is a major purpose of our National Associates organization.

Restricted Private Funds.—Funds made available to the Institution for specific purposes, largely from gifts or from income of endowment funds previously dedicated to such purposes, are also of great importance. In some cases, such as the Freer Gallery of Art, the Cooper-Hewitt Museum, and the Fort Pierce Bureau, private restricted funds provide all or the greatest share of their support. All of the land of the Chesapeake Bay Center has been acquired either by direct gift or purchased with private funds donated for this purpose. Hundreds of separate accounts are maintained for funds dedicated to a tremendous variety of similar purposes. The largest of these are given in Table 9.

As may be noted, gifts provided \$3,107,000 of this total restricted purpose income, up from \$2,618,000 in the previous year. Endowment fund income added \$1,736,000, with another \$744,000 coming from membership fees, rentals, sales of publications, museum shops, etc.

TABLE 9.—*Restricted Private Funds, Fiscal Year 1973*
[In \$1,000's]

Bureau	Income				Deductions	Net increase (decrease)	Fund balance end of year
	Investment	Gifts	Miscellaneous	Total income			
Freer Gallery.....	\$ 862	\$ 72	\$111	\$1,045	\$1,016	\$ 29	\$ 149
Fort Pierce Bureau.....	483*	297	—	780*	1,082	(302)	(43)
CBCEs Land Acquisition Program.....	—	100	49	149	125	24	155
Cooper-Hewitt Museum							
Operations.....	51	33	35	119	216	(97)	(115)
Funds for Collection.....	—	—	181	181	—	181	249
Special Purpose Funds.....	—	176	—	176	28	148	197
Building Renovation.....	—	106	—	106	159	(53)	885
Reading is Fundamental.....	—	1,189	—	1,189	542	647	712
Anacostia Museum.....	—	4	—	4	18	(14)	12
Archives of American Art.....	6	15	221	242	135	107	193
Other.....	334	1,115	147	1,596	1,281	315	1,422
Total Restricted Funds.	\$1,736*	\$3,107	\$744	\$5,587*	\$4,602	\$ 985	\$3,816

* Includes \$225,000 of FY 1972 income transferred from Endowment Fund #3 for this purpose in FY 1972.

Adoption of the Total Return Concept of Income for all endowment funds (see below) this year raised the Freer Gallery income substantially and enabled it to increase collection purchases and still operate within its resources. The exceptionally large expenditures of the Fort Pierce Bureau, met in part from an additional contribution of approximately \$300,000, reflected continued work to complete the tender ship, *R/V Johnson*.

Two important operations which are dependent largely upon restricted funds are in urgent need of greater support. The land acquisition program at Chesapeake Bay Center benefitted by another \$100,000 donation from the A. W. Mellon Foundation but another \$500,000 will still be required to complete this land purchase program, and still more funds are needed for conference and study buildings at that location. And the Cooper-Hewitt Museum in New York City, although adding to its building renovation and collection purchase funds in FY 1973, ran an operating deficit of \$97,000 even at its present minimal "holding" level when certain expected contributions did not materialize by year-end.

The Archives of American Art, which like the Freer Gallery and Anacostia Museum also receives some federal funds support, devel-

opened a healthy private funds surplus in FY 73 as the result of a mounting membership campaign and other successful fund-raising efforts. Reading is Fundamental has now been incorporated as a separate organization although it will continue to operate in close association with the Smithsonian.

Endowment Funds

The Institution has three endowment funds as follows: The Freer Fund is dedicated entirely to the operation of the Freer Gallery of Art; Endowment Fund No. 3 supports research work in underwater oceanography at the Fort Pierce Bureau in Florida; the Consolidated Fund includes all other endowment funds both for restricted and unrestricted purposes, with investments of the fund being pooled for investment purposes, although maintained separately for accounting and administrative purposes.

Changes in market values of endowment funds since 1960, reflecting additions from donations, reinvestment of income, and changes in securities valuations, are shown in Table 10.

TABLE 10.—*Market Values of Endowment Funds*
(In \$1,000's)

<i>Fund</i>	6/30/60	6/30/65	6/30/70	6/30/71	6/30/72	6/30/73
Freer Fund.....	\$13,389	\$17,276	\$14,987	\$18,805	\$21,973	\$18,279
Endowment Fund						
No. 3.....	—	—	5,433	12,331	14,641	13,196
Consolidated Fund..	4,498	7,853	8,998	11,470	13,287	12,393
Total.....	\$17,887	\$25,129	\$29,418	\$42,606	\$49,901	\$43,868

The policies and procedures governing the management of our endowment funds and other investment accounts were outlined in full in the financial reports of the past two years. In brief, they include the delegation of the investment management to three professional advisory firms, with full discretion to act, subject to policies adopted by the Board of Regents and to continual close monitoring by the Investment Policy Committee and the Treasurer. In addition, the principles of the Total Return Concept of investment are followed as to the establishment of investment goals and the deter-

mination of annual income. Such income has been set at 4½ per cent of the latest running five-year average of market values of the funds as of March 31st of each year.

Fiscal Year 1973 was a difficult one from the standpoint of financial management and all of the Institution's funds suffered a decline in values as the result of the general fall in stock prices. Results for the past year of these funds is shown in Table 11.

TABLE 11.—*Changes in Endowment Funds, Fiscal Year 1973*

<i>Fund</i>	<i>Market Value 6/30/72</i>	<i>Gifts and Trans- fers</i>	<i>Interest and Divi- dends*</i>	<i>Income Paid Out</i>	<i>Sub- total</i>	<i>Decline in Market Value</i>	<i>Market Value 6/30/73</i>
Freer Fund.....	\$21,973	\$ —	\$ 611	\$ 862	\$21,722	\$3,443	\$18,279
Endowment Fund							
No. 3.....	14,641	—	149	258	14,532	1,336	13,196
Consolidated							
Fund.....	13,287	197	384	531	13,337	944	12,393
Total.....	<u>\$49,901</u>	<u>\$197</u>	<u>\$1,144</u>	<u>\$1,651</u>	<u>\$49,591</u>	<u>\$5,723</u>	<u>\$43,868</u>

* Income earned less managers' fees.

The decline in the value of the funds due to the fall in security values alone during the past fiscal year was greater than that shown by the more widely recognized stock market averages but for the past two-year period as a whole has been closely comparable to those averages.

Additions to the Consolidated Fund during the year included \$114,000 from bequests and gifts and also \$83,000 of transfers of income for reinvestment in accordance with terms of certain bequests. Income paid out, as determined by Total Return policies mentioned above, amounted to \$1,651,000 in FY 1973. Such income will increase further in FY 1974, principally in Endowment Fund No. 3. A listing of the individual investments held in the various endowment funds may be obtained upon request to the Treasurer of the Institution.

TABLE 12.—*Consolidated Fund, 30 June 1973*

<i>Funds participating in pool</i>	<i>Principal</i>		<i>Income</i>	
	<i>Book value</i>	<i>Market value</i>	<i>1973 Net income</i>	<i>Unexpended balance</i>
UNRESTRICTED FUNDS	\$ 4,639,163	\$ 4,652,782	\$199,492	\$ —
RESTRICTED FUNDS...				
Abbott, William L.....	216,712	234,315	9,969	2,743
Archives of American Art...	22,687	23,880	1,045	—
Armstrong, Edwin James...	4,030	3,780	156	—
Arthur, James.....	65,778	87,655	3,835	12,245
Bacon, Virginia Purdy....	188,587	182,869	7,780	18,668
Baird, Spencer Fullerton...	60,297	78,355	3,429	1,716
Barney, Alice Pike.....	47,172	62,814	2,748	4,337
Barstow, Frederic D.....	2,078	2,244	95	1,697
Batchelor, Emma E.....	68,746	65,175	2,773	2,890
Becker, George F.....	324,078	316,512	13,466	15,733
Brown, Roland W.....	53,545	59,908	2,621	5,956
Canfield, Frederick A.....	62,938	96,576	4,226	—
Casey, Thomas Lincoln....	26,066	28,228	1,201	480
Chamberlain, Frances Lea..	46,315	61,676	2,699	4,769
Cooper, G. Arthur, Curator's Fund.....	2,459	2,323	91	—
Cooper-Hewitt Museum....	162,948	151,628	6,569	—
Desautels, Paul E.....	1,550	1,752	—	—
Div. of Mammal Curator Fund.....	3,507	3,582	157	384
Div. of Reptiles Curator Fund.....	576	614	27	106
Drake, Carl J.....	288,675	282,264	12,168	19,564
Dykes, Charles.....	89,521	96,903	4,123	7,803
Eickemeyer, Florence Brevoort.....	17,877	23,797	1,041	4,307
Guggenheim, David and Florence.....	220,842	197,277	7,609	—
Hanson, Martin Gustav and Caroline Runice.....	18,486	20,010	851	9,346
Hillyer, Virgil.....	13,668	14,803	630	7,090
Hitchcock, Albert S.....	2,596	3,511	154	188
Hrdlicka, Ales and Marie...	99,864	109,127	4,775	1,578
Hughes, Bruce.....	31,481	41,971	1,836	22,929
Johnson, E. R. Fenimore...	16,663	14,815	630	4,010
Kellogg, Remington, Memorial.....	48,774	42,324	1,375	1,213
Lindsey, Jessie H.....	610	617	27	243

TABLE 12.—*Consolidated Fund, 30 June 1973—Continued*

<i>Funds participating in pool</i>	<i>Principal</i>		<i>Income</i>	
	<i>Book value</i>	<i>Market value</i>	<i>1973 Net income</i>	<i>Unexpended balance</i>
Loeb, Morris.	181,675	198,453	8,443	422
Long, Annette E. and Edith C.	894	1,222	53	412
Lyons, Marcus Ward.	8,941	7,999	340	—
Maxwell, Mary E.	32,260	43,003	1,882	7,901
Myer, Catherine Walden.	42,014	45,483	1,935	4,303
Nelson, Edward William.	39,138	48,697	2,131	—
Noyes, Frank B.	2,023	2,292	98	1,126
Pell, Cornelia Livingston.	15,434	16,791	714	5,030
Petrocelli, Joseph, Memorial. Rathbun, Richard, Memorial.	12,192	16,312	714	8,064
Ramsey, Adm. and Mrs. DeWitt Clinton.	22,139	24,058	1,024	10,762
Reid, Addison T.	534,704	478,129	21,523	324
Roebing Collection.	36,984	40,032	1,703	2,611
Roebing Solar Research.	198,501	263,061	11,511	1,239
Rollins, Miriam and William Ruef, Bertha M.	51,220	51,726	2,201	—
Smithsonian Agency Account.	304,922	362,825	15,641	—
Sprague, Joseph White.	65,716	57,557	1,272	1,272
Springer, Frank.	168,734	149,990	5,679	—
Stevenson, John A.	2,217,248	2,182,979	94,106	43,169
Strong, Julia D.	29,494	39,255	1,718	20,044
T. F.H. Publications, Inc.	9,925	10,665	467	—
Walcott, Charles D.	20,810	22,607	962	3,457
Walcott, Charles D. and Mary Vaux.	8,967	7,280	310	12,221
Walcott Botanical Publica- tions.	195,201	226,947	9,783	6,730
Zerbee, Francis Brinckle.	756,802	1,007,176	44,071	10,532
	95,190	122,177	5,346	1,223
	1,561	2,064	90	1,634
Total Restricted Funds.	\$ 7,261,814	\$ 7,740,085	\$331,823	\$292,471
Total Consolidated Funds.	\$11,900,977	\$12,392,867	\$531,315	\$292,471

TABLE 13.—*Endowment and Similar Funds Summary of Investments*

<i>Funds</i>	<i>Book value 6/30/73</i>	<i>Market value 6/30/73</i>
INVESTMENT ACCOUNTS		
Freer Fund:		
Cash.....	\$ 60,958	\$ 60,958
Bonds.....	3,564,934	3,604,385
Convertible Bonds.....	1,784,133	1,658,362
Stocks.....	11,764,610	12,955,449
Total.....	\$17,174,635	\$18,279,154
Consolidated Funds:		
Cash.....	\$ 43,873	\$ 43,873
Bonds.....	2,929,742	2,923,584
Convertible Bonds.....	—0—	—0—
Stocks.....	8,927,362	9,425,410
Total.....	\$11,900,977	\$12,392,867
Endowment Fund No. 3:		
Cash.....	\$ 254,522	\$ 254,522
Bonds.....	5,738,342	6,502,133
Convertible Bonds.....	112,000	80,000
Stocks.....	6,432,317	6,358,898
Total.....	\$12,537,181	\$13,195,553
Miscellaneous:		
Bonds.....	\$ 10,063	\$ 10,412
Common Stocks.....	3,322	11,509
Total.....	\$ 13,385	\$ 21,921
TOTAL INVESTMENT ACCOUNTS.....	\$41,626,178	\$43,889,495
OTHER ACCOUNTS		
Notes Receivable.....	\$ 51,486	\$ 51,486
Loan to U. S. Treasury in perpetuity.....	1,000,000	1,000,000
Total Other Accounts.....	\$ 1,051,486	\$ 1,051,486
TOTAL ENDOWMENT AND SIMILAR FUND BALANCES...	\$42,677,664	\$44,940,981

Accounting and Auditing

The private finances of the Institution are regularly audited by independent public accountants. Accounts of the Smithsonian Science Information Exchange and the Smithsonian Research Founda-

tion are also audited regularly in this same manner. All accounts relating to grant and contract monies received from federal agencies are audited annually by the Defense Contract Audit Agency. Federally appropriated funds are subject to occasional audit by the General Accounting Office. In addition, our internal audit staff, which has been strengthened considerably in the past two years, performs continuous audits on a wide range of operations of the Institution. Such audits are particularly helpful in bringing about improved administrative practices.

Donors to the Smithsonian

The Smithsonian Institution gratefully acknowledges gifts and bequests received during fiscal year 1973 from the following:

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We also gratefully acknowledge other contributions in the amount of \$115,187.87 received from 5,038 persons during 1973.

PEAT, MARWICK, MITCHELL & CO.

CERTIFIED PUBLIC ACCOUNTANTS,
1025 CONNECTICUT AVENUE, N. W.
WASHINGTON, D.C. 20036

*The Board of Regents
Smithsonian Institution:*

We have examined the balance sheet of the Private Funds of Smithsonian Institution as of June 30, 1973 and the related statements of changes in fund balances for the year then ended. Such statements do not include the accounts of the National Gallery of Art, the John F. Kennedy Center for the Performing Arts, nor other departments, bureaus and operations administered by the Institution under Federal appropriations. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned statements present fairly the financial position of the Private Funds of Smithsonian Institution at June 30, 1973, and the changes in its fund balances for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

PEAT, MARWICK, MITCHELL & Co.

September 19, 1973

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Balance Sheet, June 30, 1973
(With comparative figures for 1972)

	<i>Assets</i>	
	1973	1972
CURRENT FUNDS:		
Cash:		
In U. S. Treasury.....	\$ 293,324	172,821
In banks and on hand.....	413,499	290,917
Total cash.....	<u>706,823</u>	<u>463,738</u>
Investments, at cost (market value \$6,078,226; \$4,149,530 in 1972) (note 1).....	<u>6,223,305</u>	<u>4,186,224</u>
Receivables:		
Accounts.....	935,486	774,332
Advances—travel and other.....	172,568	160,106
Reimbursements—grants and contracts.....	1,061,872	986,797
	<u>2,169,926</u>	<u>1,921,235</u>
Inventories, at lower of average cost or net real- izable value.....	602,254	567,210
Prepaid expenses.....	456,659	114,047
Deferred magazine expenses (note 1).....	769,670	749,226
Equipment (less accumulated depreciation of \$303,385; \$189,804 in 1972) (notes 1 and 3)....	328,107	408,211
Total current funds.....	<u>\$11,256,744</u>	<u>8,409,891</u>
ENDOWMENT AND SIMILAR FUNDS (notes 1 and 2):		
Cash.....	359,353	1,299,088
Notes receivable.....	51,486	95,316
Investments—at cost (market value \$43,530,142; \$48,629,718 in 1972).....	41,266,827	32,273,457
Loan to U. S. Treasury in perpetuity.....	1,000,000	1,000,000
Total endowment and similar funds.....	<u>\$42,677,666</u>	<u>34,667,861</u>
REAL ESTATE ACQUISITION FUND (note 5):		
Real estate, at cost or appraised value at date of gift (note 1).....	<u>3,471,825</u>	<u>3,326,956</u>
Total real estate acquisition fund.....	<u>\$ 3,471,825</u>	<u>3,326,956</u>

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Balance Sheet, June 30, 1973

(With comparative figures for 1972)

Liabilities and Fund Balances

	1973	1972
CURRENT FUNDS:		
Note payable (note 3).....	\$ 295,761	383,691
Accounts payable.....	875,716	421,213
Accrued liabilities.....	825,949	669,065
Deferred income:		
Magazine subscriptions.....	2,746,892	1,931,311
Other.....	290,560	117,019
Total liabilities.....	5,034,878	3,522,299
Fund balances:		
Unrestricted.....	2,323,958	1,781,105
Restricted:		
Unexpended income from endowments.....	512,895	550,580
Gifts.....	3,304,054	2,505,906
Grants and contracts.....	80,959	50,001
Total fund balances.....	6,221,866	4,887,592
Total current funds.....	\$11,256,744	8,409,891
ENDOWMENT AND SIMILAR FUNDS:		
Fund balances:		
Endowment funds.....	36,913,730	29,320,809
Funds functioning as endowment.....	5,763,936	5,347,052
Total endowment and similar funds.....	\$42,677,666	34,667,861
REAL ESTATE ACQUISITION FUND:		
Mortgage notes payable (note 4).....	432,534	353,138
Fund balance.....	3,039,291	2,973,818
Total real estate acquisition fund.....	\$ 3,471,825	3,326,956

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Statement of Changes in Current Fund Balances

Year ended June 30, 1973

	<i>Unrestricted funds</i>			<i>Restricted funds</i>		
	<i>Total</i>	<i>General</i>	<i>Activities</i>	<i>Income from endowments</i>	<i>Gifts</i>	<i>Grants and contracts</i>
REVENUE AND OTHER ADDITIONS:						
Net sales	\$ 8,704,654	\$ 68,242	\$8,318,992	—	\$ 317,420	—
Less cost of goods sold	5,206,784	—	5,206,784	—	—	—
Gross profit	3,497,870	68,242	3,112,208	—	317,420	—
Grants and contracts, net	9,027,076	—	—	—	—	9,027,076
Investment return from endowment and similar funds:						
Investment income	1,211,762	176,244	—	1,035,518	—	—
Portion of investment gain appropriated (note 2)	506,769	82,463	—	424,306	—	—
Total investment return from endowment and similar funds	1,718,531	258,707	—	1,459,824	—	—
Other investment income	228,043	177,210	—	—	50,833	—
Gifts, bequests and foundation grants	3,296,958	32,697	157,089	72,004	3,035,168	—
Rental and commissions	243,184	229,149	—	—	14,035	—
Other	495,476	76,744	6,687	116,805	295,240	—
Total revenue and other additions	18,507,138	842,749	3,275,984	1,648,633	3,712,696	9,027,075
EXPENDITURES AND OTHER DEDUCTIONS:						
Salary and benefits	10,233,027	2,494,621	1,777,108	488,246	1,131,469	4,341,583
Purchases for collection	390,888	22,759	—	279,183	70,054	18,892
Travel and transportation	698,166	63,749	49,775	58,520	145,820	380,302
Equipment and facilities	822,883	182,338	54,759	26,104	92,949	466,733
Supplies and materials	1,116,006	73,501	106,718	74,860	406,394	454,533
Rent and utilities	100,905	29,350	5,634	—	21,215	44,706
Communications	139,966	59,960	20,274	69	14,997	44,666
Contractual services	3,615,593	204,077	557,970	375,890	1,094,031	1,383,625
Promotion and advertising	70,389	—	70,389	—	—	—
Depreciation	19,990	—	19,990	—	—	—
Administrative expenditures	(125,000)	(2,771,674)	409,400	106,241	259,218	1,871,815
Total expenditures and other deductions	17,082,813	358,681	3,072,017	1,409,113	3,236,147	9,006,855
Excess of revenue and other additions over expenditures and other deductions	1,424,325	484,068	203,967	239,520	476,549	20,221
TRANSFERS:						
Real estate acquisition fund	(65,473)	—	—	—	(65,473)	—
Donor designated endowment	(5,500)	—	—	—	(5,500)	—
Income added to endowment principal	(66,350)	—	—	(66,350)	—	—
Cost sharing—grants and contracts	—	(7,816)	—	—	(15,856)	23,672
For designated purposes	(21,128)	(102,964)	(34,402)	(279,255)	408,428	(12,935)
Endowment appropriated	68,400	—	—	68,400	—	—
From activities to general funds	—	169,565	(169,565)	—	—	—
Total transfers	(90,051)	58,785	(203,967)	(277,205)	321,599	10,737
Net increase (decrease) in fund balances	1,334,274	542,853	—	(37,685)	798,148	30,958
Fund balances at June 30, 1972	4,887,592	1,781,105	—	550,580	2,505,906	50,001
Fund balances at June 30, 1973	\$ 6,221,866	\$ 2,323,958	—	\$ 512,895	\$3,304,054	\$ 80,959

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Statement of Changes in Endowment and Similar Fund Balances
Year ended June 30, 1973

	<i>Total</i>	<i>Endowment funds</i>		<i>Funds functioning as endowment</i>	
		<i>Total</i>	<i>Freer</i>		<i>Other</i>
REVENUES AND OTHER ADDITIONS:					
Investment return:					
Realized gain on investment	\$ 8,383,058	7,971,017	1,978,319	5,992,698	412,041
Less portion of investment gain appropriated to current funds . . .	506,769	424,306	250,805	173,501	82,463
Net gain added to principal	7,876,289	7,546,711	1,727,514	5,819,197	329,578
Gifts and bequests	108,938	42,760	—	42,760	66,178
Total revenues and other additions	7,985,227	7,589,471	1,727,514	5,861,957	395,756
TRANSFERS:					
Donor design endowment fund	5,500	5,500	—	5,500	—
Income added to principal	66,350	66,350	—	66,350	—
Designated purposes	21,128	—	—	—	21,128
Endowment appropriated	(68,400)	(68,400)	—	(68,400)	—
Total transfers	24,578	3,450	—	3,450	21,128
Net increase for the year	8,009,805	7,592,921	1,727,514	5,865,407	416,884
Fund balances at June 30, 1972 . . .	34,667,861	29,320,809	15,447,121	13,873,688	5,347,052
Fund balances at June 30, 1973 . . .	\$42,677,666	36,913,730	17,174,635	19,739,095	5,763,936

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Statement of Changes in Real Estate Acquisition Fund Balance
Year ended June 30, 1973

Fund balance at June 30, 1972, as previously reported	\$1,973,818
Adjustment—to record gift funds received for the acquisition of Freer Gallery of Art building (note 1)	1,000,000
Fund balances at June 30, 1972, as adjusted	2,973,818
Transfer from gift funds—land acquisition:	
Chesapeake Bay Center	\$78,104
Hillwood Estate	10
Transfers to gift funds—land sales—Chesapeake Bay Center	(12,641)
Fund balance at June 30, 1973	\$3,039,291

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Notes to Financial Statements
June 30, 1973

1. Summary of Significant Accounting Policies

- a. The accompanying financial statements have been prepared on the accrual method of accounting, except that:

- (1) No liability is reflected for annual leave earned by employees but not taken (approximately \$200,000 at June 30, 1973).
- (2) Investments are stated at cost or market value at date of gift. Bond premiums and discounts are not being amortized.
- (3) Interest income is not accrued on endowment and similar fund investments.

The aggregate effect of the above accounting policies, which are commonly followed by not-for-profit organizations, is estimated not to have a material effect on the accompanying financial statements.

- b. The accounts of the Institution are maintained in accordance with the principles of "fund accounting" whereby resources are classified into funds in accordance with activities or objectives specified.

Restricted funds may only be utilized in accordance with the purposes established by the source of such funds and are in contrast with unrestricted funds over which the Institution retains full control to use in achieving any of its institutional purposes.

Endowment funds are subject to the restrictions of gift instruments and are not wholly expendable on a current basis. Funds functioning as endowment have been established by the governing board for the same purposes as endowment funds, any portion of such funds may be expended on a current basis.

- c. Subscription income and promotional expenses in respect to the Institution's magazine are deferred and taken into income and expense over the subscription period.
- d. Fixed assets are recorded as follows:

Museum shop and computer equipment—those purchased with private funds are capitalized in the current fund.

Land and buildings—those acquired by gift or by use of gift funds are recorded in the real estate acquisition fund at cost or appraised value at date of gift, except for gifts of certain islands in the Chesapeake Bay, Carnegie Mansion, and Hillwood Estate, which have been recorded at nominal values. Gift funds in the amount of \$1,000,000 received toward the acquisition of the Freer Gallery of Art were not recorded in the real estate acquisition fund when received in 1916. In order to reflect land and buildings on a consistent basis, the prior years' financial statements have been restated to reflect such amount in the real estate account. All other land and buildings (principally acquired with federal funds) and furniture, equipment, works of art, living or other specimens are not reflected in the accompanying financial statements. Museum shops and computer equipment are depreciated on a straight-line

basis over an estimated useful life of five years. In accordance with generally accepted accounting principles for not-for-profit organizations, depreciation is not provided on non-income producing assets.

2. *Endowment Funds and Funds Functioning as Endowments*

Effective July 1, 1972, the Institution adopted the "total return" approach to investment management of endowment funds and funds functioning as endowment. Under this approach, the total investment return is considered to include realized and unrealized gains and losses in addition to interest and dividends. In applying this approach, it is the Institution's policy to limit the amount available for current expenditures to interest and dividends received where the market value of the assets of any fund is less than 110 percent of the historic dollar value (value of gifts at date of donation). For 1973, the Institution provided $4\frac{1}{2}$ percent of the five year average of the market value of each fund (adjusted for gifts and transfers during this period) as being available for current expenditures.

The change to the total return approach resulted in appropriations of gains (realized or unrealized) from endowment funds and funds functioning as endowment to the current unrestricted fund (\$82,463) and to the current restricted fund (\$424,306) representing the excess of the amount made available for current expenditures over interest and dividends received for the year ended June 30, 1973.

3. *Note Payable*

The note payable in the principal amount of \$295,761, which is non-interest bearing, is secured by computer equipment and is payable in monthly installments of \$7,993 to June 30, 1976.

4. *Mortgage Notes Payable*

The mortgage notes payable are secured by first deeds of trust on property acquired in connection with the Chesapeake Bay Center. Funds for the repayment of these notes will be transferred from certain restricted funds—gifts, which are designated for the development of the Chesapeake Bay Center. The details of the mortgage notes payable are as follows:

- a. A \$199,500 note on property acquired for \$376,000. The note is payable in fifteen consecutive semi-annual installments of \$13,300, plus interest at the prevailing prime rate on the due date of payment but not less than 8 percent, with the final payment due July 1, 1980.
- b. A \$53,034 note on property acquired for \$118,533. The note is payable in monthly installments of \$451, including interest at the rate of 6 percent, with the final payment due on November 1, 1989.
- c. A \$60,000 note on property acquired for \$120,000. The note is payable in annual installments of \$30,000, plus interest at the rate of 7 percent on the unpaid balance, with the final payment due November 1, 1974.
- d. A \$140,000 note on property acquired for \$157,500. The note is payable in semi-annual installments of \$10,000, plus interest at the rate of 6 percent on the unpaid balance, with the final payment due November 7, 1979.

5. Real Estate Acquisition Fund

The real estate acquisition fund includes certain land and buildings acquired by gift or purchased from restricted funds. This property is currently being used for museums, the Chesapeake Bay Center and a conference center.

6. Pension Plan

The Institution has a contributory pension plan providing for the purchase of retirement annuity contracts for all employees meeting certain age and length of service requirements. Under terms of the plan, the Institution contributes the amount necessary to bring the total contribution to 12 percent of the participants' compensation subject to social security taxes and to 17 percent of the participants' compensation in excess of that amount. The total pension expense for the year was \$688,782.

Mrs. HANSEN. Thank you very much, Dr. Ripley. I particularly want to thank the staff, Dr. Challinor, Dr. Blitzer, Mrs. Hamilton, Dr. Reed, and every one of you, and I want to congratulate you, Mr. Collins, for keeping your construction job on the road, on time, and within the budget.

Mr. RIPLEY. We thank you very much, Madam Chairman and gentlemen.

THURSDAY, MARCH 28, 1974.

WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

WITNESSES

JAMES H. BILLINGTON, DIRECTOR,
WILLIAM M. DUNN, ADMINISTRATIVE OFFICER

Mrs. HANSEN. The committee will come to order. We will now consider the Woodrow Wilson International Center for Scholars.

We have as our principal witness Dr. James H. Billington and you have with you your Administrative Officer, Mr. William Dunn.

We will insert your biography in the record at this point.

[The biography follows:]

BIOGRAPHY OF JAMES H. BILLINGTON, DIRECTOR, WWICS

Dr. Billington holds a B.A. degree from Princeton and a D.Phil. from Oxford, where he was a Rhodes Scholar. He served in the U.S. Army, 1953-56, and began his teaching career as a history instructor at Harvard in 1957. Subsequently he served at Harvard as assistant professor of history and research fellow at the Russian Research Center. Since 1962, he has been at Princeton and was appointed professor of history in 1964. Dr. Billington has been a Guggenheim Fellow, a Hodder Fellow of the Princeton Humanities Council, and McCosh Faculty Fellow of Princeton University. He has been a guest lecturer at the University of Leningrad, the University of Puerto Rico and leading universities in Western Europe, and guest research professor at both the Institute of History, Moscow, and the University of Helsinki, Finland.

A Phi Beta Kappa, he is a director of the Association of American Rhodes Scholars, a past director of the American Association for the Advancement of Slavic Studies, a member of the council on Foreign Relations, and of P.E.N. He is on the editorial advisory board of Foreign Affairs and Theology Today. He is the author of *Mikhailovsky and Russian Populism* (1958), *The Icon and the Axe: An Interpretive History of Russian Culture* (1966) and other books including the forthcoming publication *Origins of the Modern Revolutionary Tradition*. He has written widely in *Life*, *Foreign Affairs* and other professional and popular journals. Recently he was historian-host of a series of scholarly discussions on the Humanities Film Forum on nationwide educational television.

In 1971, he was appointed to the Board of Foreign Scholarships, which has authority over all academic exchanges with 110 countries under the Fulbright-Hays Act. He was elected and served as Chairman of the Board from 1971 to 1973; and was instrumental in initiating the new series of Lincoln Lectureships set up to commemorate the 25th anniversary of the program.

Mrs. HANSEN. You have a general statement and if you want to summarize that and insert the statement in the record that is fine.

Mr. BILLINGTON. Thank you, Madam Chairman.

[The statement follows:]

SMITHSONIAN INSTITUTION LIBRARIES



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